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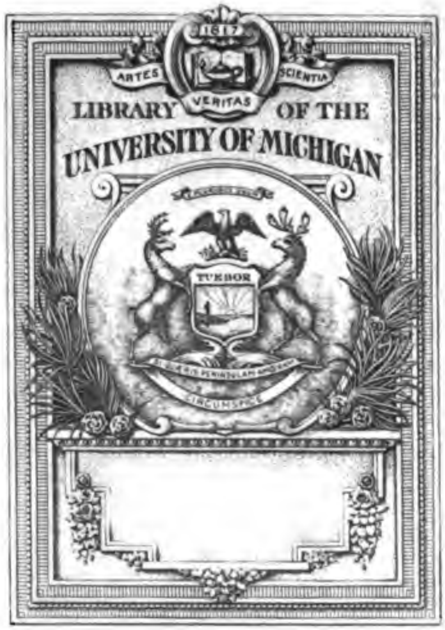
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# STATE OF NEW YORK

# FIRST ANNUAL REPORT

OF THE

New York (State) [illegible]

# CONSERVATION COMMISSION

1911

## VOLUME I

## DIVISIONS OF LANDS AND FORESTS AND FISH AND GAME

TRANSMITTED TO THE LEGISLATURE JANUARY 10, 1912

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# FIRST ANNUAL REPORT

OF THE

# CONSERVATION COMMISSION.

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Albany, N. Y., *Jan.* 10, 1912.

Hon. Thos. F. Conway, *President of the Senate:*

I have the honor to transmit herewith, as required by law, the annual report of the Conservation Commission for the fiscal year ending September 30, 1911.

Respectfully yours,
CONSERVATION COMMISSION,
By GEORGE E. VAN KENNEN,
*Chairman.*

# STATE OF NEW YORK.

# CONSERVATION COMMISSION.

| | |
|---|---|
| George E. Van Kennen, Ogdensburg | *Commissioners* |
| James W. Fleming, Troy | |
| John D. Moore, New York | |

| | |
|---|---|
| Charles H. Jackson, Albany | *Deputy Commissioners* |
| Thomas H. Guy, Troy | |
| Edwin Bailey, Patchogue | |

| | |
|---|---|
| Albert E. Hoyt, Albany | *Secretary to Commission* |
| John J. Farrell, Troy | *Assistant Secretary* |
| George V. S. Williams, Brooklyn | *Counsel to Commission* |
| George P. Decker, Rochester | *Assistant Counsel* |
| Richard W. Sherman, Utica | *Chief Engineer* |
| M. H. Hoover, Lockport | *Chief of Publication* |

# FIRST ANNUAL REPORT
OF THE
# CONSERVATION COMMISSION.

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*To the Legislature:*

Pursuant to statutory direction, that the Conservation Commission "shall annually report to the Legislature on or before January 15th specifying the receipts, expenditures and work of the department for the preceding fiscal year," we have the honor to submit the following:

The Conservation Commission was created by chapter 647 of the Laws of 1911, known as the Conservation Law. To the enactment of this legislation, there was virtually no opposition; such members of the Legislature as dissented, having done so not on grounds of policy, but because of what they regarded as defects and imperfections in the proposed statute. The time was ripe, the press and the public were ready. When Governor Dix affixed his signature to the proposed legislation, "as a first and long step toward true conservation," he but voiced the general hope and expectation. "To the commission," he said, "is delegated lines of work either new as state undertakings or to be performed under new conditions and broadened powers; to drain swamp lands at the expense of property benefited, to lease surplus canal waters on a proper revenue basis so that that power may be utilized under safe and proper restrictions, to supervise all construction work in streams in order to protect the public's right and safeguard life and property against the danger from impounded waters, to protect oyster beds against pollution, and to establish state nurseries from which denuded lands may be reforested."

By the provisions of chapter 647 the Conservation Commission succeeded to all the powers and duties of the Forest, Fish and Game Commission, the Forest Purchasing Board, the Water Supply Commission, and the commissioners of water power on Black river. The intent and effect was to consolidate under one head all the closely related duties and problems of administration over forest and stream, fish and game, and to give powerful impetus to the conservation of the natural resources of the Empire State.

To this end, the law vests the Conservation Commission with jurisdiction over investigation of water resources; regulation and use of water in the principal watersheds; safety of dams and reservoirs; prevention of floods; supply of potable water to municipalities; disposal of sewage; drainage and irrigation, as well as tree culture and reforestation, the care and custody of forests and parks, and the protection and propagation of fish and game. In order that consolidation might not mean confusion, the framers of the Conservation Law wisely provided for three grand divisions of the Conservation Department, along the natural and logical lines of (1) lands and forests, (2) fish and game and (3) inland waters, and directed that each of the three deputy commissioners to be appointed should perform duties relating to one of these three divisions. Thus, the general scheme of organization centers in a commission, directly responsible to the Governor, and through him to the people; while each of the divisions, with its bureaus or subdivisions, has its well-defined duties and responsibilities.

While each of the divisions will be taken up later in this report, it may be well, by way of general summary, at this point to note that the forest preserve placed under the care of the Conservation Commission embraces 1,600,000 acres; that there are 100,000 acres of swamp land in the State which may be advantageously drained; that 7,200,000 acres of forest lands are to be protected from fire; that more than 15,000,000 trees are being grown from seed, in the six State nurseries, for purposes of reforestation; that the commission is now propagating for distribution, approximately a billion fish; that there is a steadily increasing demand for an extension of the invaluable work of protection of fish and game, now performed by ninety-five regular game protectors; that more than a million horsepower to-day remains to be harnessed and utilized for the general good, — the equivalent of 10,000,000 tons of coal per year. But whereas coal once consumed is destroyed, water is an ever renewable natural resource.

Herein are involved far-reaching problems whose solution calls for intelligent, concerted administrative and legislative action; but a plan which shall save and store the vast horse-power now annually dissipated in flood and freshet, and utilize it for commercial use, to the benefit alike of public treasury and of private industry, will mark a constructive achievement not surpassed in our State since the days of Governor Clinton and the Erie canal.

The Conservation Law took effect July 21, 1911; but not until November 15th last was consolidation completed, in fact as well as in law, through occupancy of the property located at 21–23 Washington avenue, where all the theretofore scattered divisions and bureaus are now housed under one roof, greatly facilitating the conduct of departmental business.

The Conservation Law directs the Conservation Commission to report to the Legislature on or before January 15, 1912, bills to "revise and consolidate into the Conservation Law" all laws relating to lands and forests, to fish and game, to hydraulic development, and to water storage for power purposes. These proposed statutes will in due course come before the Legislature. Contemporaneously, the Commission has co-operated with the joint committee of the Legislature headed by Senator T. Harvey Ferris, which has held many hearings on water storage and hydraulic development, in various parts of the State.

Such recommendations as the Commission is ready to submit along these lines of proposed legislation will be found, for greater clarity, in the parts of this report devoted severally to the Division of Lands and Forests, the Division of Fish and Game, and the Division of Inland Waters.

Hereto annexed, and made a part of this report, will be found a financial statement by which it will be seen that this Department has received from hunter's licenses $156,005.60, and from miscellaneous sources $102,221.05, a total of $258,226.65, which exceeds the receipts for the last previous fiscal year ($248,878.08) by $9,348.57.

The total disbursements for the fiscal year are $558,688.91 compared with $563,198.82 for the last previous year, making a reduction or saving of $4,509.91.

Disbursements for the Canaseraga Creek Improvement are not included above. That improvement is paid for from a separate fund, for which the credit of the State is not pledged, and for which no State tax can be levied. A financial statement of the Canaseraga Creek Improvement appears separately hereinafter.

## DIVISION OF LANDS AND FORESTS.

In the preservation and restoration of the forests in the watersheds of the Adirondack and Catskill Preserves, the prevention of fires is the fundamental thing. It is of little use to reforest the bare places unless the growth is protected, as a single fire could wipe out the results of several years' work in replanting. The efficiency of the fire protection of the forests is shown in the fact that, although the year 1911 was a year of unusual drought and with an increased number of fires over that of previous years, but one-half of 1 per cent. of the total area of the forests under protection suffered fire loss; and this, although each patrolman covered an area of over 100,000 acres.

The State bears the entire cost of the patrolling of forest lands, although it owns less than one-fourth of the area patrolled. The entire expense of the patrol system is borne by the State, as well as one-half the extra expense of the cost of fighting fire. These two items last year amounted to $71,067.60, of which the State paid directly $47,693.62 for patrolling, and for one-half of the cost of hiring extra help in fighting fires, $23,373.98. It would seem only a matter of good business and justice to all concerned if the cost of patrolling and of fire fighting should be based on the area of the forest lands protected. Is there any reason why the State should pay for the protection of the forests of private owners? An equitable system could be devised whereby each private owner and the State would pay a just and proportionate amount of the expense of saving the forests.

So much of the welfare and prosperity of the State at large depend upon the protection of the watersheds that the State should assume control of the timber cutting, and by law regulate the size of the trees to be cut. The various interests which now own large tracts of forest lands in the Adirondacks especially have in most cases expressed a willingness for the enactment of such a law, and have agreed to co-operate in seeing that such a law was properly observed. This regulation, which would provide that no trees should be cut under a certain diameter, would be an efficient means to prevent the destruction of the watersheds and a great aid in the work of reforestation of cut over lands, in that it would provide natural reforestation by seed trees.

Referring again to the work of forest fire protection, it may be properly stated that the increased efficiency was in a large part due to the installation during the year of sixteen new observation stations, making thirty-six in all, as follows: Ampersand, Franklin county; Arab, St. Lawrence; Bald, Lewis; Black, Washington; Blue, Hamilton; Boreas, Essex; Catamount, St. Lawrence; Crane, Warren; Dunn Brook, Hamilton; Kempshall, Hamilton; Makomis, Essex; Ohmer, Saratoga; Owl's Head, Hamilton; Vanderwhacker, Essex; Wakely, Hamilton; Woodhull, Herkimer. Several additional mountain stations are contemplated for 1912. Telephone lines were built to connect the various stations, and the Commission is pleased to report the hearty coöperation of landowners and others in connection with this work. The Commission has the free use of over 100 miles of private telephone lines.

The number of fire patrolmen was increased in 1911 from forty-eight to sixty-four, leaving an average area for each to protect of about 100,000 acres as against an average of 120,000 acres in the previous year. The districts in many cases are still too large.

The forest product showed a falling off, as shown by the following figures for the lumber, pulpwood and round wood output reported for the three years: 1910, 927,933,291 feet; 1909, 1,091,164,710 feet; 1908, 1,226,754,305 feet.

The annual removal of 1,000,000,000 feet of wood material from the State forests cannot go on indefinitely, without reforestation on a scale which shall enable the growth to at least balance the cutting of trees. There has been a falling off of 300,000,000 feet the last three years, or 25 per cent. It is estimated that the forest area containing merchantable timber is 6,000,000 acres, or 9,380 square miles, including the large area of State lands upon which there is no cutting. The timber cut reported in 1910, if reduced to boards one inch thick, would cover 22,956 acres, or thirty-six square miles. The increase in stumpage prices and the advent of the portable mill are to-day producing an extraordinary amount of forest products.

The State nurseries now contain nearly 16,000,000 growing trees. During the year the State supplied at cost to private landowners 1,774,000 trees, besides carrying on its own reforesting operations. It has on hand 11,000,000 trees for sale next spring. A new nursery was established during the year at Saratoga and plans are being put into effect for the establishment of another at Great Meadows, Comstock. The Great Meadows nursery will be one of the largest in the State and one of the most efficient in the United States.

The utilization of idle soil is one of the established principles of conservation, inasmuch as it makes available for the use of man the productivity of land too sterile, or for other reasons not suitable for other than forest purposes. It is estimated that in this State to-day five trees are cut down to every one planted. At the present rate of increase of reforestation and in accordance with the Commission's plans it is expected to reach the much to be desired result of planting at least one tree for every one removed.

The method of reforestation recommended by Governor Dix has received approval of the people in all parts of the State.

The use of prisoners in growing nursery stock for reforestation will greatly reduce the cost of the transplants, since labor is the main item. The State should encourage by every means this reforestation work and the policy of selling trees at cost should be a very large inducement. The State should make no profit whatever on transactions of this character.

The policy of the State in regard to its land in the Forest Preserve should be to consolidate its holdings so that the work of protecting the forests and of reforesting the watersheds can be made most effective and at the least expense. The summits of mountains in the parks should be acquired so as to afford the greatest protection to the watersheds in the conservation of water.

The Conservation Commission regards the State Forest Preserve as the people's great playground and health resort, for the use of all and abuse of none.

The prevalence and destructive effects of the chestnut blight have received much attention during the summer. The disease has virtually wiped out the valuable chestnut groves of New Jersey, and, according to the Pennsylvania Chestnut Blight Commission has caused $10,000,000 damage to the forests of that State. A conference was held by this Commission with Commissioner of Agriculture Pearson and representatives of Pennsylvania, New

Jersey, Massachusetts and Connecticut, and plans discussed for controlling and eradicating the disease, which is threatening the extinction of a valuable forest tree. This disease, together with the State's experience with the white pine blister rust and other serious tree troubles, suggests the urgent necessity for the services of an expert plant pathologist. The nature of many of the tree diseases, the agencies by which they are spread and methods of control are almost unknown.

## PURCHASE OF FOREST LANDS.

Prior to the creation of the Conservation Commission the authority to purchase lands in the Adirondack and Catskill parks was vested in the Forest Purchasing Board. The powers and duties of that board were delegated to this Commission by the Conservation Law.

At the time of the organization of this Commission it appears that the State owned 1,643,244 acres of land in the Forest Preserve counties. Of this acreage 1,401,942 acres are situated within the Adirondack park and 102,677 acres within the Catskill park. The remaining lands aggregating 138,625 acres are situated in the Forest Preserve counties outside of the parks proper. These isolated tracts, averaging small areas of land, are so scattered that it is difficult and expensive to protect them from the dangers of fire and from devastation by trespass, and they contribute very little to the purpose for which these parks were created. They are of little or no use as pleasure grounds for the people; nor do they protect the head waters of our streams for the preservation and regulation of the same.

It seems to us that it would be wise for the State to adopt some measures by which these isolated tracts might be sold and the proceeds thereof used in the purchase of lands within the parks proper.

The Commission also found that its predecessors in office had been conducting negotiations for the purchase of a considerable quantity of land in the park system, particularly in the Catskills. These negotiations were found to be in various stages of completion. In some cases the deeds had been taken from the owners and placed on record. In other cases, proposals for the sale of land had been tendered by the owners and the State had made offers for the same and agreed upon the price to be paid therefor, subject, of course, to the production of an abstract showing title thereto and subject, further, to the consent and approval of the Executive.

In the Catskill park it was found that negotiations for the purchase of lands aggregating 16,678 acres had been undertaken by the Forest Purchasing Board. The price agreed to be paid for these lands, subject to approval of title and the further approval of the Governor, was $90,518.30, and it was found that the appropriation available for their purchase was $22,289.86, leaving a balance unprovided for amounting to $68,228.44.

In the Adirondacks it appears that aside from the large area known as the Taggart-Fisher tract of about 40,000 acres which had been appropriated by the Forest Purchasing Board, it had negotiated for the purchase of lands amounting at the agreed price to the sum of $1,860. The balance of the appropriation available for the purchase of lands in the Adirondacks amounted to the sum of $48,174.48.

It appears, therefore, that this Board had practically contracted for lands valued at $21,913.96 more than had been appropriated for that purpose. This does not take into account the value of the large tract of land appropriated by the Forest Purchasing Board as heretofore mentioned.

This Commission has completed the purchase of all lands where the owners had delivered deeds thereto to the State and the same had been recorded, and has also investigated the remaining lands with a view of ascertaining whether the prices agreed to be paid are reasonable and the title thereto marketable; and while it appears that in some instances the State agreed to pay more than the land was reasonably worth, we recommend that the balance in the appropriation for the purchase of lands in the Adirondacks be made available for the payment of lands contracted for in the Catskill park; also that the Legislature appropriate a sum sufficient to complete the sales so contracted for by the Forest Purchasing Board, estimated to be approximately $25,000. We further recommend that they appropriate a like sum so that this Commission may at all times have money available to take advantage of any offers that might be made for the sale of land to the State, where it appears that the price is just and reasonable.

This Commission will submit a complete revision and codification of all the laws relating to the powers and duties of the Land Purchasing Board and Forest, Fish and Game Commission, and we recommend:

1. A permanent and more extensive fire patrol system in the forest preserve counties, with additional patrolmen and observation stations, and State-wide fire supervision of woodlands and railroad rights of way.

2. More stringent regulations in regard to protection against fires, and greater powers to the Commission in making such regulations and enforcing penalties for violations thereof.

3. More extended powers to the Commission of acquiring land for the protection and conservation of the forests and waters of the State.

4. Power of supervision over parks and reservations receiving and disbursing State moneys, and not now under the supervision of any other State officer.

5. Power to establish rules whereby lumbering on lands within the Adirondack and Catskill parks shall be carried on in a scientific manner so as to perpetuate the forest cover, preserve the parks and protect the water supply of the State.

6. The promotion of reforestation by the adoption of measures whereby the burden of taxation may be lessened upon those lands within the forest preserve counties which shall be replanted with trees or allowed to remain as wild forest lands.

7. Extend the powers of the Commission in regard to establishing and maintaining nurseries and reforesting both State and private lands.

## DIVISION OF FISH AND GAME.

Throughout the State there has been apparent during the year a more general desire on the part of the public to assist the department in the enforcement of the fish and game laws, indicating an aroused popular sentiment in favor of the objects of these laws. During the year the regular and special protectors brought actions for violations which resulted in the recovery of $37,173.74 in fines, at an expense of $4,735.79, cost of prosecutions. The average cost of prosecuting the case was less than the preceding year. This year but 83 special protectors were actively in the service as against 104 last year, but the results indicate that the smaller force of specials performed their duties more efficiently because of the weeding out of the inactive ones. The regular protectors reported 1,277 cases and the specials 258.

The game laws cannot be enforced unless they appeal to the common sense and common interests of the sportsmen, the farmers, the landowners and all who delight in the recreation of rod and gun. The Conservation Commission is in hearty accord with the popular demand for "fewer laws, more fish and game."

The general desire of the Commission is to make the law, first, more simple in form so that it may be clearly understood, not only by the experienced lawyer, but by the average citizen; secondly, to make the law general throughout the State, in so far as it is practicable. The present law abounds in local provisions, and in order to eliminate these it will be necessary to give to the Conservation Commission the power within certain proper limits of prohibiting or regulating the taking of any species of fish or game when such prohibition or regulation becomes necessary for the proper conservation or protection of the same. Among the more radical changes recommended are: First, a change in the size limit of trout from six to seven inches; second, a bag limit of twenty-five birds to be placed on wild fowl; third, a bag limit of fifteen birds per day to be placed on shore birds; fourth, the permitting of the sale of trout raised in private hatcheries under a proper system of licensing and tagging.

The Commission believes that without imposing any unjust burden on the citizens of the State, the Division of Fish and Game can be made self-supporting, providing a proper solution may be reached for obtaining an adequate income from the lands leased for shell fish purposes.

The fish and game protective departments of the State have heretofore rated their efficiency too largely on the number of convictions secured and penalties recovered, with the greater the number of successful prosecutions the greater the credit claimed by the protectors. This Commission will endeavor to popularize the work of preserving and protecting the wild life of forests and streams to a point where the oldtime standard shall change. By that, of course, is not meant that there shall be any relaxation of vigilance and determination to bring habitual and wilful violators of the law to justice, for as the chief protector says, "Every time the game law is violated with impunity, the moral sense of the violator is weakened and his respect for the law is lessened." And touching on the necessity for the moral support of the general public in the work of law enforcement, he adds: "But, if the sense of the community in which he resides is in favor of a strict enforcement of the law, the breaker of that law will be severely judged by his associates." However, until public coöperation in the enforcement of the law shall have become more general and active, the efficiency of protectors must be to a large extent based on the number of convictions secured; and, until that time the hands of the protective department should be strengthened in this State. An increased number of protectors is urgently required. There should be at least one in every county and several protectors in the counties where the fish and game are most abundant and the largest number of violations of the law necessarily occur. From all over the State come demands for increased protection for fish and game which the Commission is unable to meet without legislation increasing the total number of protectors.

It is gratifying to report that during the year chapter 256 of the Laws of 1910, for the protection of wild birds in this State, the so-called plumage law, attacked by the plumage interests as unconstitutional on the chief ground that the Legislature had no right to classify birds into families, was upheld by the United States Circuit Court in New York, and the Attorney-General's interpretation of the law sustained.

The utility and effectiveness of the so-called Bayne-Blauvelt Law, prohibiting the sale of game (with certain exceptions), with a view to the increase of game, is now on trial. All lovers of recreation in forest, field and stream show a disposition to coöperate with the Commission in making the test an instructive and useful one. The general experience of the protectors is that the anti-sale law is very helpful to the service and in itself a valuable protection to the wild game of the State. The Cold Storage Law and the Sullivan Law also come in for a similar commendation.

As a result of the enforcement of the Bayne Law, the pot hunter has lost his market, and hence his incentive to kill more game than he can use himself.

The reorganization of the force of special protectors, including regulations requiring them to report to a division chief, has improved the discipline among the specials and made them more effective.

Game protectors throughout the State report that as a whole deer are more plentiful this year than ever before. The experiment of feeding deer during the winter, made possible through an appropriation by the last Legislature, proved successful and should be greatly extended in scope.

The State Game Farm at Sherburne distributed through the State during the year 2,535 pheasants and 12,945 pheasants' eggs. Arrangements are already under way to increase the brood birds to 1,000 and the farm superintendent gives assurances that the distribution of pheasants and pheasants' eggs will be easily doubled in 1912.

Experiments are being carried on in relation to raising ruffed grouse for propagation purposes, and there is much to encourage the belief that the partridge, the hunter's favorite game bird, may again be restored to covers now untenanted. At least one additional game farm should be established in the eastern part of the State.

Reports from all quarters of the Adirondacks show that the beaver are increasing.

A most helpful work was the elimination from New York market of the sale of canned game.

The money collected for netting licenses for the year was $10,048.44, a gain of $406.62 over 1910. For hunting licenses there was collected $156,005.60, which is an increase of $14,786.60 over the preceding year. This with the amount of fines collected makes a total of $196,991.98.

## FISH PROPAGATION.

The State fish hatcheries during the year produced and distributed throughout the State 700,000,000 fish. New York's nine hatcheries produced almost one-fourth as many fish as the Federal government's fifty hatcheries. New York propagated twice as many fingerling and yearling trout in proportion as the United States Fisheries Bureau. Of the 8,000,000 of trout distributed during the year over 45 per cent. were fingerlings. The State's fish output was 165,000,000 more this year than last, and the State Fish Culturist expects a production of 1,000,000,000 fish for the waters of the State in 1912. Upon a basis of one-half the price charged by commercial hatcheries, the State hatcheries' production in 1911 was worth over $200,000, and the cost of the work was only about $75,000.

The inventoried value of the hatcheries properties, located at Upper Saranac, Bath, Mumford, Bemus Point, Cold Spring Harbor, Margaretville, Old Forge, Linlithgo and Constantia, totals $144,251.77.

The Commission respectfully recommends the establishment of a fish hatchery in St. Lawrence county. The State Fish Culturist urges this additional hatchery on the ground that the distribution of bass, pike-perch, maskalonge, yellow perch and the various kinds of trout and whitefish for the St. Lawrence region should represent hundreds of millions of fish every year, instead of the few millions which the Commission is now able to send to the county. He is convinced that "All of the fish mentioned could be propagated more advantageously in St. Lawrence county, and the waters of the St. Lawrence and of other counties within reasonable distances from the proposed hatchery could be more effectively and economically supplied with good fish than at present. Not only is it expensive to transport live fish over long distances, but the risk of loss in transportation is very great, especially in hot weather."

## BUREAU OF MARINE FISHERIES.

The growing importance of the Bureau of Marine Fisheries may be illustrated to a degree by directing attention to the fact that the revenue derived from its operations in 1907 was $4,846.18 and for the year just closed $23,694.02. This result was made possible by legislation regulating the leasing of lands under water for shell fish cultivation. It marked the beginning of a new policy looking to the development of this important resource in contrast with the old practice through which the State had granted to individuals in perpetuity thousands of acres of its most valuable shell fish lands. There are at present held under these so-called franchises 15,991.6 acres, while the acreage under lease is 15,336.9, making a total of 31,328.5 acres. Of this total, 2,192.2 acres were added during the past fiscal year, and there are now pending applications covering 1,795.6 acres. These lands are subject to a uniform tax of twenty-five cents an acre. During the year there was collected the sum of $7,417.27, while the total of rentals paid by lands held under lease was $13,166.63.

The system of triangulation continued during the year covers about thirteen miles between Horton's Point and Orient Point and Plum Island. These surveys will eventually cover the whole of the north shore of Long Island and should be extended to the waters surrounding Fishers Island. There have been sixty-one surveys of individual lots covering 6,992.2 acres.

From the best statistics obtainable the value of the shell fish taken from waters within this State during the past year is upward of $12,000,000, and while no statistics are available concerning the value of the migratory food fish output it is safe to assume that it was at least of as great commercial value as the shell fish. So that it must not be lost sight of that the State of New York through the Bureau of Marine Fisheries is dealing with an economic and commercial condition which at present shows an annual output value at from $20,000,000 to $25,000,000 and capable of enormous development under proper legislation, and likewise capable of producing for the State a great increase over the present revenues of the bureau without imposing an unfair burden on those engaged in fisheries as a means of livelihood.

The great needs in the development of our marine fisheries are a just and equitable system of taxation of shell fish lands; proper laws to prevent pollution of public waters by sewerage and manufacturers' waste, and suitable legislation to enable the State to take advantage of modern scientific methods for the propagation and protection of the various marine species. Under the present law a uniform tax of twenty-five cents per acre, upon all shell fish lands within the jurisdiction of the bureau, must be levied, regardless of value. Oyster lands in favored localities and properly cultivated if available for private ownership are frequently estimated to be worth from $500 to $5,000 per acre, depending on productivity. Uplands planted to corn under favorable cultivation yield a hundred fold. Shell-fish lands cultivated under modern methods are capable of producing twelve hundred fold. There is of course as much difference in the relative value of oyster lands as exists in the value of agricultural lands.

In view of this plain fact the levy of a tax of twenty-five cents per acre upon all lands without respect to value is upon its face unwise and unjust. Various States have given consideration to this problem and without going into details of their experience it is established that the most practical and fair method of taxation is the one which provides for the appraisal of all shellfish lands and a determination of their value upon the basis of productivity and the imposition of a small amount per centum of tax upon the determined value. The methods used can easily follow the present methods for the appraisal and taxation of real estate values under our general tax laws. The result would be a revenue of at least $100,000 to the State, which might be available to the bureau for extending its system of protection of oyster lands, the establishment of experimental stations for the scientific study of shell and marine fish protection. Some idea of the possibilities of development with the added revenue derived from the proposed system of taxation may be had when attention is called to the fact that the total output of marine species at the Cold Spring Harbor station for the period ending June 30, 1911, was 338,600,000. This total represents food fish exclusively and includes about 45,000,000 of lobsters alone, a species which five years ago was all but extinct in our waters, but the artificial propagation of which under great difficulties has been successfully carried on under the direction of the State Fish Culturist.

The most serious problem with which the Conservation Commission is called upon to deal in the administration of this bureau is that of pollution of our public waters by the untreated sewage of municipalities and the waste of manufacturing plants. Thousands of acres of shellfish lands have been destroyed by the deposits of contaminating substances. Public health is jeopardized and the migratory food fish supply reduced by the destruction of great numbers of fish in waters polluted by various manufacturing waste. It is estimated that in the Hudson river alone over

50,000 acres of what were formerly valuable shellfish lands have been ruined by the deposit of industrial waste. Legislation is needed to prevent the pollution of public water from sewage by requiring municipalities to install sewage disposal plants. The question has been ignored too long, although its great importance has frequently been called to public attention. Provisions should be made by statute prohibiting the cities and towns of the State from sewering into public waters, and the authority of law should likewise be vested in this Commission to prevent by injunction the pollution of streams by the manufacturers in all cases where it can be shown that the deposit of such materials in streams is destructive to fish life or where the public health is imperilled by a continuance of the process.

The investigation of sanitary conditions of oyster beds is being actively prosecuted by the Commission, and such measures will be taken as are deemed necessary for the protection of public health. Many of the States, including Massachusetts, Maine, Rhode Island and Maryland have already dealt with the problems of pollution in a modern and progressive manner. The city of Baltimore has but recently inaugurated a system of sewage disposal and prohibited the discharge of manufacturers' waste products into the waters within its jurisdiction. The same work is now being given active consideration by the fisheries and health authorities of New Jersey. This State should no longer delay action upon a question which concerns the health of its people and the protection of one of its important industries. There is a great necessity for a biological station on Long Island for the study of the habits, spawning grounds and propagation of migratory fish, mollusks and crustacea. This would inaugurate a work which would within a short period increase the catches of marine species to a great degree and furnish to our citizens vast quantities of cheap and desirable food. The Empire State cannot afford to lag behind in a work of this character which is now being carried on with great success by most of the European countries, some of the South American Republics as well as the States of New Jersey, Virginia, Alabama, Mississippi and Louisiana. If Uruguay can afford to appropriate $150,000 per annum for the development of its fisheries we ought not to hesitate in the work of developing and protecting the fisheries in our 400 miles of sea coast.

## DIVISION OF INLAND WATERS.

The most notable feature disclosed by the investigations of the department during the past year, in relation to water storage and hydraulic development, is the magnitude and value of the water powers which are at present owned by the State through ownership of riparian lands, surplus canal waters, those which would naturally belong to the State through the operation of proposed storage reservoirs, and those which may properly become the property of the State by virtue of Federal grants of rights in boundary waters. A general summary of some of the principal of these powers is given in the following table. It is not intended herein to list all the powers to which the State may lay claim:

**Table of Hydraulic Power of New York State in Which the State Has or Claims a Predominant Interest.**

**1. Undeveloped powers belonging to the State by reason of practically complete riparian ownership or otherwise. (Powers are for regulated flow.)**

| | Continuous. Horsepower. | 60 per cent. of time. Horsepower. |
|---|---|---|
| (a) Niagara Falls | 75,000 | 75,000 |
| (b) Kettle Mountain, Hudson river | 16,000 | 28,500 |
| (c) On Sacandaga river above Northville | 24,000 | 31,200 |
| (d) Ausable river | 8,000 | 10,000 |
| | 123,000 | 144,700 |

**2. Powers added to existing and contemplated private plants along streams by reason of proposed water storage.**

| | Horsepower. | Increase by regulation over present min. power. Horsepower. |
|---|---|---|
| (a) Sacandaga storage | 32,000 | 90,000 |
| Upper Sacandaga storage | 13,000 | 20,000 |
| (b) Indian Lake storage (new) | 15,000 | 40,000 |
| (c) Genesee storage (Portage reservoir) | 8,000 | 20,000 |
| (d) Black river storage (2 small reservoirs) | 22,000 | 53,000 |
| (e) Raquette river | 33,000 | 90,000 |
| (f) Oswego river (est.) | 12,000 | 20,000 |
| (g) Oswegatchie river (est.) | 10,000 | 30,000 |
| | 145,000 | 363,000 |

3. Power created at or near site of proposed storage dams:

| | Continuous. Horsepower. | 60 per cent. of time. Horsepower. |
|---|---|---|
| (a) Portage | 30,000 | 39,000 |
| (b) Mount Morris | 14,000 | 16,000 |
| (c) Black | 2,500 | 3,000 |
| (d) Sacandaga | 34,000 | 42,000 |
| (e) Indian Lake | 11,000 | 14,000 |
| | 91,500 | 114,000 |

| | |
|---|---|
| 4. Power belonging to the State as a result of Barge canal construction. Estimated by the Barge canal authorities, as | 50,000 |
| 5. Power that may belong to the State from assertion of rights in cases where damages have been paid in the construction of the Erie canal, etc. Estimated at | 20,000 |
| | 70,000 |
| Total continuous horsepower | 429,500 |

In the column headed 60 *per cent. of time* are placed the figures showing the size of development which could run at full capacity 60 per cent. of the time. This represents the ordinary commercial limit of development.

In any comprehensive scheme for the development and use of the powers of the State there should be considered also other powers in connection with which private interests or other questions must be taken into account. To furnish a highway for the transportation of this product to market is believed to be a proper governmental function. The following table gives an idea of the magnitude of this subject. It is not intended to be a complete inventory of undeveloped powers, but to show the largest of those which could contribute power to a general system of power highways:

TABLE OF LARGE UNDEVELOPED POWERS IN THE DEVELOPMENT OF WHICH PRIVATE INTERESTS OR OTHER QUESTIONS MUST BE CONSIDERED.

| | Continuous power. Horsepower. |
|---|---|
| Long Sault of the St. Lawrence | 500,000 |
| Rapids of Niagara river (Using a second time at the rapids the 20,000 second feet available at the Falls on the American side under the International Treaty) | 145,000 |
| Upper Hudson | 90,000 |
| Raquette | 120,000 |
| Total | 855,000 |
| Total undeveloped power for which electric highways should be provided | 1,284,500 |

The commission is conducting a careful investigation of the rights of the State in existing power developments. A complete plan for the development and use of State-owned powers should be worked out, and the support of the Legislature, in the granting of adequate appropriations, is earnestly invited in behalf of the numerous lines of investigation and research which are needful in order that the provisions of the Conservation Law may be realized. Investigations already begun under the Fuller Act of 1907, on the Black, Oswegatchie, and other unsurveyed streams, should be continued, as well as subsurface investigations near Conklingville, in connection with the proposed Sacandaga reservoir and along the proposed tunnel line, for power development at Hadley.

During the past year there have been several important developments relating to the river improvement law, the most significant whereof was the decision of Justice Sutherland in the Canaseraga Creek improvement matter. When the Conservation Commission, in July last, succeeded the State Water Supply Commission, it was confronted by the Sutherland decision, handed down January 4, 1911, to the effect that, in dealing with the Canaseraga Creek improvement, the Water Supply Commission had exceeded its statutory authority by including in its ordered construction artificial channels, thus grafting upon the river improvement scheme a drainage scheme. Obviously, if sustained by the higher courts, the effect of this decision would be to jeopardize the bonds previously sold, from whose proceeds the Canaseraga improvement was financed. The Conservation Commission was confronted with a serious dilemma. The landowners of the district affected actively desired a continuance of the work. At the same time, it was imperative that the bonds be protected. The Conservation Commission has continued the work, after making careful and impartial appraisals of the property of the interested landowners, and taking measures calculated to protect the interest of the bondowners.

The State has had drainage laws since its formation, and considerable work has been done under such laws, but the result has been almost universal failure. If we look for the reason, we shall find it in the methods prescribed for carrying on the work. The provisions for drainage contained in the Conservation Law are designed to overcome previous defects of procedure. Hence it is believed that there will eventually result from the present law the reclamation of at least 100,000 acres of swamp land and an addition of $10,000,000 to farm land values of the State.

The future work of the Conservation Commission under the drainage law should develop into a very important feature of its activities, and appropriations should be made to provide necessary funds to carry on reconnaissances of swamp lands and a detailed survey of at least one promising project.

We call the attention of the Legislature to the distressing conditions arising from the water supply situation in Westchester county, and urge legislation looking to co-operation among the various municipalities in the southern portion of that county for securing an adequate and permanent supply of pure and wholesome water.

Water for domestic purposes was carried through the streets in milk cans and sprinkling carts in the city of Mount Vernon and various small villages in the fall of 1910. Only opportune fall rains prevented a recurrence of the same conditions in 1911.

Each of the various municipalities is engaged in endeavoring to solve its own small problem, and naturally finds no solution for more than a very limited period, while the rapid growth in the population of the region makes a large general and permanent solution more imperative.

The work of the commission during the past year in the equitable apportioning of water supplies to the various municipalities of the State, as required by law, is briefly indicated by the following table of water supply applications:

## WATER SUPPLY APPLICATIONS.

| No. | | Application filed. | Disposition. |
|---|---|---|---|
| 93. | Village of Avoca | Jan. 25, 1911 | Approved Feb. 10, 1911 |
| 94. | Westbury Water District | Feb. 21, 1911 | Approved April 7, 1911 |
| 95. | Weedsport Water Co | Mar. 1, 1911 | Approved Mar. 22, 1911 |
| 96. | City of Gloversville | April 26, 1911 | Approved June 16, 1911 |
| 97. | Village of Cornwall | May 24, 1911 | Approved June 6, 1911 |
| 98. | City of Cortland | June 17, 1911 | Approved July 11, 1911 |
| 99. | Castle Heights Water Co | July 6, 1911 | Approved Sept. 25, 1911 |
| 100. | Village of Mexico | Aug. 12, 1911 | Pending. |
| 101. | N. Y. City, Borough of Richmond | Sept. 12, 1911 | Pending. |
| 102. | N. Y. City, Borough of Brooklyn | Sept. 12, 1911 | Pending. |
| 103. | Manhasset-Lakeville Water District. | Oct. 24, 1911 | Approved Dec. 20, 1911 |

Experience has shown that the laws governing State and municipal water supplies could be amended to advantage, by giving this commission power to exercise more thorough supervision and control over proposed water supply systems. It is especially important that the commission should be empowered to intervene in the not infrequent cases in which existing water supply systems, especially those of private companies, are found inadequate to meet the demands for water of the communities which they serve. Control of rates charged for water should be exercised by some State authority, as complaints of excessive and inequitable charges have been numerous.

## INSPECTION OF DAMS.

Among the important duties intrusted to the Conservation Commission is the protection of life and property from the dangers arising from impounded waters. The appointment by this commission of an expert engineer as Inspector of Docks and Dams chanced to coincide closely with the disaster at Austin, Pa., an object-lesson as to the danger attendant upon faulty construction — a danger whose gravity has been by no means adequately appreciated. Among the first duties assigned to him by the commission was the inspection of the Austin dam, and his report as to the causes of its collapse, which was the earliest explanation thereof, has been widely accepted as authoritative, and has been fully corroborated by subsequent testimony.

Between October 10 and November 30 last the commission inspected and reported on no less than 46 dams in this State. They were found generally in a neglected condition. Many of the older type of wooden dams had been continued in use, which were built when the country was unsettled and surrounding property of slight value; others were poorly constructed earth dams. But the old structures were not alone faulty. Five solid masonry dams, in process of construction, were condemned. In all, 38 of the 46 dams were found defective; in some cases entire rebuilding, and in others, repairs, were recommended. The commission is pleased to add that in every case its recommendations are being cheerfully complied with.

These investigations will be actively continued. The commission proposes to see to it that every old dam in the State is made safe, that no new dam shall be constructed which is not safe. To the end that adequate power in this regard may be vested in the commission, we recommend that the law be amended.

## LEGAL BUREAU.

It is contemplated by the Conservation Law that all legal matters shall be carried on under the direct supervision of the commission and its counsel at its main office. Heretofore local attorneys had been employed throughout the State at great expense, with unsatisfactory results. Upon the organizing of the commission its counsel found that there were pending in the various counties of the State upwards of 200 suits for injunctions, trespass and penalties, many of the cases involving the question of the State's title to large tracts of forest lands and the enforcement of the laws intended to lessen the danger from forest fires.

All attorneys representing the State's interest were requested to send their cases to the commission with substitutions, and at this time the Deputy Attorney-General assigned to the work of the commission has on his calendars every action and appeal involving proceedings authorized by the commission or its predecessors.

Many cases heretofore commenced were found to be without merit and have been promptly discontinued, and we are now scrutinizing carefully the proofs in all complaints before ordering suit upon them with a view to prosecuting only real violators of the law, and as a result of this policy of discrimination but two cases have been decided adversely to the State's interests since the formation of this department.

There seems to be a growing tendency to observe the laws which lessen the dangers from forest fires, and the violations, for the most part, come from those who were ignorant of the law. In nearly all cases the precautions required of each have been promptly taken when their attention was directed to the regulations. A great many cases arise from deliberate trespass upon lands claimed by the State in order that disputes as to title may be settled by the courts. These cases require careful preparation and great difficulties have been experienced on account of the lack of a proper survey, as many thousands of acres of land have been purchased by the State without any attempt at a survey, and we have cases where no such land as described can be located or found to exist. We have established a bureau of surveys, with a plan whereby each survey as made will fit into a scheme of surveys and field notes so that when complete there can be no excuse for trespass upon the State's land and no question as to the location of any parcel.

An experienced title lawyer has been appointed specially to prepare cases involving titles, to make abstracts and, as far as possible, the titles abstracted will when completed set forth fully and comprehensively the status of the State's title to lands in the two great parks.

The codification of the forest law is doubly important at this time when the water storage problem, whereby the waste waters of the State can be converted into power, is of great moment, and laws encouraging reforestation of lands now barren and looking to the scientific cutting of timber at the head waters of the streams so as to preserve a forest cover, have received careful attention and we hope will meet with the approval of all interested. The codification of the fish and game law is also of great importance and we hope to report a statute so that no violation can be excused by a misunderstanding of its provisions. Many changes and amendments are suggested, possibly the chief of which is that an habitual offender shall receive more severe punishment. Both these reports in full with the modifications and changes recommended will be placed in your hands later as well as the proposed new statutes relating to the conservation of the waste and flood waters of the State.

The rights of the millowners on the streams where regulation of the flow is contemplated are being carefully investigated and tabulated. This work involves a complete examination of the earlier laws, under which most of the mill sites were created, and the result is very important and interesting when the question of the manner of making the improvement is taken up.

During the year 247 actions were settled and 110 otherwise disposed of. One action for trespass resulted in the payment of $10,000 in cash and the ceding to the State of property worth at least $20,000 more.

## IN CONCLUSION.

State sovereignty necessarily includes among its attributes authority to control and regulate the material resources provided by nature.

It may be asserted without fear of contradiction that water power is a paramount factor in the State's growth and prosperity; that the conservation of water in reservoirs and at head-waters, and regulation of the same, would result in a uniform flow, an increase of power, the protection of public and private property from damage by flood, the removal of a menace to public health and an improvement to navigation.

The State should own and regulate the disposition of whatever additional water power it may create, provide for the proper utilization thereof, and dispose of it at such reasonable charge as will yield a public revenue, stimulate the development of industries and afford greater opportunities for the wage-earner. If this cannot be accomplished, otherwise than by direct action of the State, then the State itself should develop and furnish power for the general benefit. In the initiation of a plan of conservation, the future should be amply provided for, and every precaution essential to present and future interests of the people of the State should be taken. Legitimate investments of private capital should be properly protected.

From time to time laws have been enacted permitting leases of the surplus waters of the canal system, but by reason of limitations surrounding the same, the revenue derived therefrom was nominal and the opportunity for power development was slight. Substantially all these leases have been terminated, and the few remaining in force should be terminated as early as practicable.

When the barge canal is completed, the quantity of surplus canal water will be materially increased. It is conservatively estimated that it will then be sufficient to develop at least 50,000 horse power without injury to navigation.

The surplus water of the canals is unquestionably owned by the State. The State should not permit so valuable a resource to be wasted, or utilized without adequate return.

The development and distribution of the surplus water of the canals, for power purposes, can be secured at comparatively small expense. Measures providing for such development, and distribution for public purposes along the line of the canals where many municipalities and citizens can derive material benefit therefrom, should be enacted.

All of which is respectfully submitted.

GEORGE E. VAN KENNEN,
JAMES W. FLEMING,
JOHN D. MOORE,
*Conservation Commissioners.*

# DIVISION OF LANDS AND FORESTS.

CHARLES H. JACKSON, *Deputy Commissioner.*
CLIFFORD R. PETTIS, *Supt. of Forests.*

# CONSERVATION COMMISSION.

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## DIVISION OF LANDS AND FORESTS.

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ALBANY, N. Y., *Jan.* 1, 1912.

*To the Conservation Commission:*

Herewith I transmit to you, pursuant to law, the annual report of the Superintendent of Forests.

Respectfully yours,
CHARLES H. JACKSON,
*Deputy Commissioner.*

UNIV. OF MICH.

# ANNUAL REPORT

OF THE

# FORESTRY BUREAU.

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# REPORT OF SUPERINTENDENT OF FORESTS.

HON. CHARLES H. JACKSON, *Deputy Commissioner, Division of Lands and Forests, Conservation Commission.*

SIR.—I respectfully submit the following report, for the year 1911, of the work conducted by the Forestry Bureau of the former Forest, Fish and Game Commission and that of Forests in the Division of Lands and Forests of the present Conservation Commission.

## INTRODUCTION.

The work of the former Forestry Department and the present Bureau of Forestry includes the enforcement of the forest fire law and protection of forests from fire within the central portions of the forest preserve counties; securing and compiling statistics showing the annual forest product; the operation of nurseries for the production of planting stock, reforesting State lands and sale of trees to private owners; administration of State lands and their protection from trespass; co-operating with and advising private landowners in regard to the management of their woodlands; examinations of lands of various State institutions and reports thereon to boards of managers; study of various tree diseases; conducting various forest studies; also educational and extension work, including lectures and preparation of pamphlets.

## FOREST FIRES.

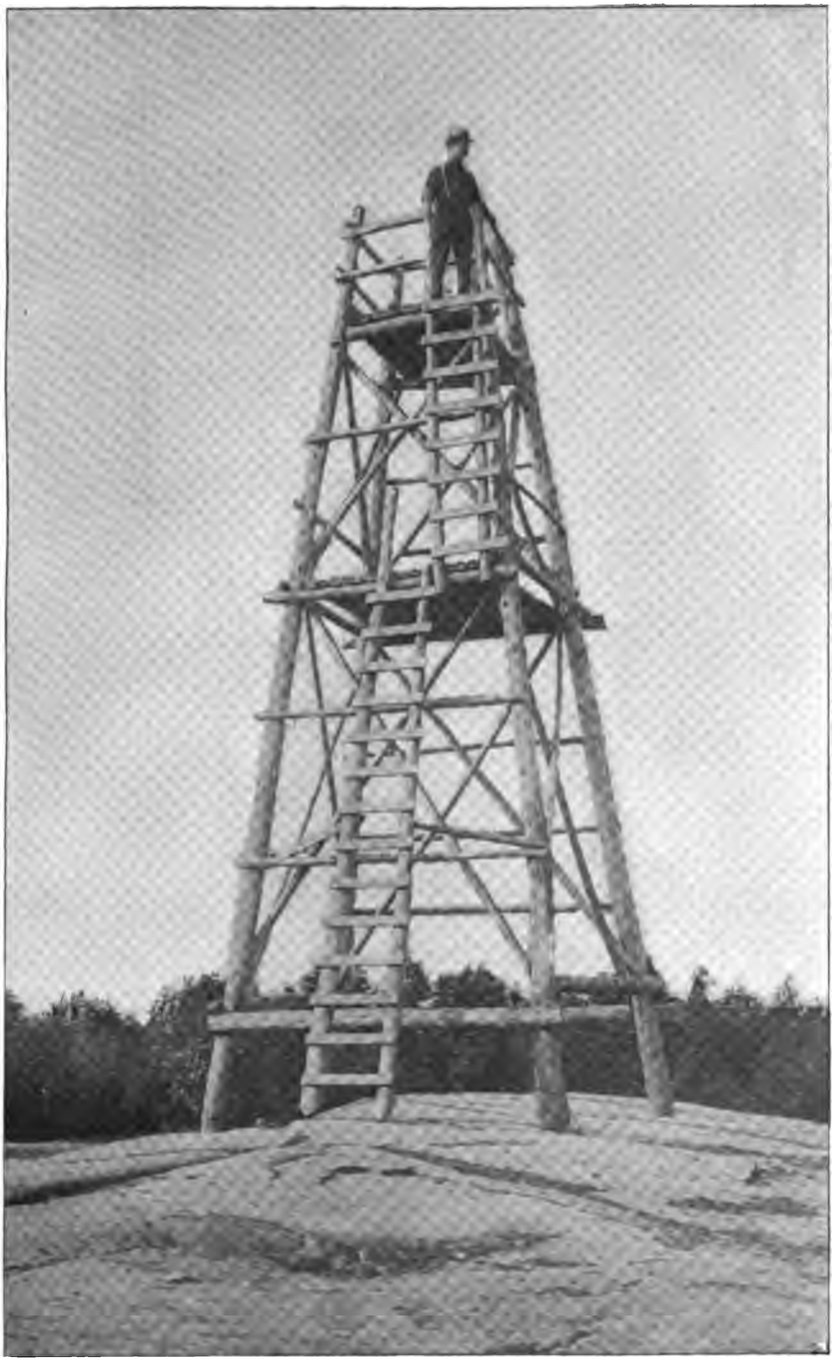
The present duties of the Commission in regard to forest fires are confined to the prevention and extinguishing of fires within the wooded areas of ninety-six towns in the central portions of the sixteen forest preserve counties and the enforcement of laws relative to railroads that operate in those counties.

### REPORT OF FIRES DURING 1911.

There has occurred in this State the past spring and summer a repetition of the severe droughts which we have had other years, but fortunately the forest loss this year, due to the numerous fires which occur during such seasons, has been comparatively small. The fire season began about April 20th and continued, coincident with the severe drought, until August 20th. The increase in the number of fires caused by lightning is remarkable. During the severe fire season of 1908 there were reported but nine fires due to this agency, while in 1909 there were only eight, and in 1910 there were eleven; but during the past year, a total of sixty-five was reported. The prevalence of lightning and its influence in causing fires is indicated by the repeated damage to telephones maintained at the mountain stations, although protected by lightning arresters, and the origin of fires in inaccessible and unfrequented places, also fires starting at the time electric storms occurred. There were many places in the Adirondacks where no rain of consequence or only local showers occurred for nearly four weeks and in the northeastern portion the reduction of rainfall was greatest. The efficiency and value of the present fire force is strikingly indicated when the fire loss and area burned in our forest sections is compared with what did occur in Maine, Ontario or the Lake States the present year under similar conditions. The largest fires occurred during the latter part of April and early in May. These fires spread rapidly but were confined to denuded areas, destroyed but little property and occurred largely before the full regular summer force was inaugurated.

All cases of reported incendiary fires have been investigated. Through the agency of this Commission three men were indicted for setting fires in Ulster county and one in Franklin county. Other cases are in preparation.

The accompanying table shows the acreage burned and resulting damage due to forest fires during the year in the ninety-six towns. The statistics are arranged both by counties and causes. An examination of these figures shows that but one-half of 1 per cent. of the total area (7,232,000 acres) under protection suffered, although each fire patrolman covered a territory aggregating over 100,000 acres. The expenses of this fire patrol service, including all salaries and expenses and a fair proportion of the cost of mountain stations, was but six-tenths of one cent per acre. All this was accomplished under the severe conditions due to extreme drought.



Tower for Observers Use in Locating Forest Fires.

UNIV. OF MICH.

# SUMMARY OF FOREST FIRE LOSS, 1911 — BY COUNTIES.

## ADIRONDACKS.

| COUNTY. | Number of fires. | Total acreage burned. | Total expense fighting fires. | ACRES PRIVATE LAND BURNED. | | | ACRES STATE LAND BURNED. | | | Value standing timber destroyed. | Value logs, lumber, etc., destroyed. | Value of buildings destroyed. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Timber. | Brush. | Waste. | Timber. | Brush. | Waste. | | | |
| Clinton | 62 | 3,744 | $2,642 21 | 591 | 1,934 | 168 | ...... | 1,051 | ...... | $5,160 | $14 | $369 |
| Essex | 113 | 2,308 | 5,123 17 | 288 | 642 | 654 | 247 | 199 | 278 | 1,504 | 1,895 | 75 |
| Franklin | 63 | 6,916 | 3,211 33 | 1,488 | 4,032 | 800 | 102 | 69 | 425 | 4,658 | 10,696 | 415 |
| Fulton | 18 | 420 | 87 40 | 112 | 27 | 236 | 15 | ...... | 30 | 395 | ........ | 10 |
| Hamilton | 41 | 4,306 | 2,347 09 | 1,875 | 38 | 77 | 35 | 2,159 | 122 | 1,132 | 6 | ......... |
| Herkimer | 27 | 1,709 | 1,003 20 | 816 | 647 | 130 | 1 | 115 | ...... | 1,740 | 200 | 180 |
| Lewis | 29 | 3,647 | 569 47 | 288 | 2,553 | 806 | ...... | ...... | ...... | 518 | ........ | ......... |
| Oneida | 2 | ........ | 5 10 | ...... | ...... | ...... | ...... | ...... | ...... | 5 | ........ | ......... |
| St. Lawrence | 37 | 2,078 | 2,247 63 | 6 | 558 | 1,013 | 201 | 300 | ...... | 132 | ........ | 75 |
| Saratoga | 14 | 479 | 91 10 | 146 | 231 | 87 | 15 | ...... | ...... | 255 | ........ | 19 |
| Warren | 57 | 1,128 | 1,508 20 | 409 | 173 | 98 | 447 | 1 | ...... | 1,823 | 15 | 44 |
| Washington | 21 | 1,022 | 878 80 | 516 | 493 | 13 | ...... | ...... | ...... | 955 | 18 | 951 |
| Total | 484 | 27,757 | $19,714 70 | 6,535 | 11,328 | 4,082 | 1,063 | 3,894 | 855 | $18,277 | $12,844 | $2,138 |
| CATSKILLS. | | | | | | | | | | | | |
| Delaware | 32 | 2,403 | $789 05 | 443 | 1,178 | 80 | 350 | 352 | ...... | $3,945 | $36 | ......... |
| Greene | 8 | 246 | 83 15 | 242 | 1 | 3 | ...... | ...... | ...... | 175 | ........ | ......... |
| Sullivan | 14 | 874 | 222 60 | 265 | 256 | 353 | ...... | ...... | ...... | 498 | 181 | $10 |
| Ulster | 58 | 6,629 | 2,232 29 | 3,254 | 2,931 | 164 | ...... | 280 | ...... | 4,090 | 420 | 1,050 |
| Total | 112 | 10,152 | $3,327 09 | 4,204 | 4,366 | 600 | 350 | 632 | ...... | $8,708 | $637 | $1,060 |
| TOTALS. | | | | | | | | | | | | |
| Adirondacks | 484 | 27,757 | $19,714 70 | 6,535 | 11,328 | 4,082 | 1,063 | 3,894 | 855 | $18,277 | $12,844 | $2,138 |
| Catskills | 112 | 10,152 | 3,327 09 | 4,204 | 4,366 | 600 | 350 | 632 | ...... | 8,708 | 637 | 1,060 |
| Total | 596 | 37,909 | $23,041 79 | 10,739 | 15,694 | 4,682 | 1,413 | 4,526 | 855 | $26,985 | $13,481 | $3,198 |

## SUMMARY FOREST FIRE LOSSES, 1911 — BY CAUSES.

### ADIRONDACK REGION.

| CAUSE. | Number of fires. | Total acreage burned. | ACRES PRIVATE LAND BURNED. | | | ACRES STATE LAND BURNED. | | | Value of standing timber destroyed. | Value of logs and lumber, destroyed. | Value of buildings, fences, etc., destroyed. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Timber. | Brush. | Waste. | Timber. | Brush. | Waste. | | | |
| Railroads | 67 | 604 | 121 | 249 | 233 | ...... | 1 | ...... | $610 | $154 | $115 |
| Lightning | 65 | 3,195 | 1,725 | 200 | 783 | 174 | 83 | 230 | 1,869 | 6 | 4 |
| Smokers | 60 | 2,450 | 296 | 1,038 | 884 | 201 | 1 | 30 | 1,431 | 35 | 700 |
| Fishermen | 32 | 2,171 | 606 | 616 | 20 | 31 | 498 | 400 | 790 | 18 | 14 |
| Berry pickers | 32 | 1,200 | 169 | 751 | 90 | 100 | 35 | 55 | 825 | ...... | 25 |
| Incendiary | 30 | 4,741 | 1,284 | 3,054 | 118 | 225 | 50 | 10 | 3,653 | 2,535 | 350 |
| Carelessness | 30 | 663 | 242 | 349 | 57 | 15 | ...... | ...... | 460 | ...... | 185 |
| Campers | 27 | 1,176 | 10 | 226 | 830 | 4 | 6 | 100 | 238 | 1,700 | 75 |
| Clearing land | 31 | 2,838 | 575 | 2,157 | 79 | 3 | 20 | 4 | 1,095 | 200 | 40 |
| Hunters | 9 | 22 | 10 | 5 | ...... | 7 | ...... | ...... | 60 | ...... | ...... |
| Road rollers | 2 | ...... | ...... | ...... | ...... | ...... | ...... | ...... | ...... | ...... | ...... |
| Log loaders | 1 | 50 | ...... | 50 | ...... | ...... | ...... | ...... | ...... | ...... | ...... |
| Paper balloons | 1 | 8 | ...... | ...... | 8 | ...... | ...... | ...... | ...... | ...... | ...... |
| Unknown | 96 | 8,634 | 1,497 | 2,628 | 980 | 303 | 3,200 | 26 | 7,246 | 8,196 | 630 |
| Total | 484 | 27,757 | 6,535 | 11,328 | 4,082 | 1,063 | 3,894 | 855 | $18,277 | $12,844 | $2,138 |

### CATSKILL REGION.

| CAUSE. | Number of fires. | Total acreage burned. | ACRES PRIVATE LAND BURNED. | | | ACRES STATE LAND BURNED. | | | Value of standing timber destroyed. | Value of logs and lumber, destroyed. | Value of buildings, fences, etc., destroyed. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Timber. | Brush. | Waste. | Timber. | Brush. | Waste. | | | |
| Railroads | 42 | 1,586 | 272 | 546 | 66 | 350 | 352 | ...... | $2,718 | $6 | $10 |
| Smokers | 12 | 1,130 | 795 | 335 | ...... | ...... | ...... | ...... | 840 | 110 | ...... |
| Incendiary | 7 | 882 | 611 | 100 | 171 | ...... | ...... | ...... | 585 | 336 | 50 |
| Carelessness | 6 | 94 | 91 | 3 | ...... | ...... | ...... | ...... | 145 | ...... | ...... |
| Berry pickers | 6 | 2,880 | 1,380 | 1,500 | ...... | ...... | ...... | ...... | 1,400 | ...... | ...... |
| Clearing land | 4 | 100 | 92 | ...... | 8 | ...... | ...... | ...... | 75 | 10 | 1,000 |
| Fishermen | 3 | 9 | 5 | 2 | 2 | ...... | ...... | ...... | 25 | ...... | ...... |
| Campers | 2 | 90 | ...... | 90 | ...... | ...... | ...... | ...... | ...... | ...... | ...... |
| Hunters | 1 | ...... | ...... | ...... | ...... | ...... | ...... | ...... | ...... | ...... | ...... |
| Blasting | 1 | 100 | 100 | ...... | ...... | ...... | ...... | ...... | 200 | ...... | ...... |
| Steam shovel | 1 | 140 | 80 | 60 | ...... | ...... | ...... | ...... | 300 | ...... | ...... |
| Burning building | 1 | 200 | 100 | 100 | ...... | ...... | ...... | ...... | 100 | ...... | ...... |
| Unknown | 26 | 2,941 | 678 | 1,630 | 353 | ...... | 280 | ...... | 2,320 | 175 | ...... |
| Total | 112 | 10,152 | 4,204 | 4,366 | 600 | 350 | 632 | ...... | $8,708 | $637 | $1,060 |

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## IMPROVEMENTS EFFECTED.

The number of observation stations was increased from twenty to thirty-six and several additional stations are contemplated. The new stations to be recommended will be so located as to give the best service, fill in the present gaps and at all times aid in furtherance of a comprehensive plan to best protect the entire forest area. The stations installed during the year, date of installation and their locations are as follows:

| Name of station. | Location. | | Date of installation. |
|---|---|---|---|
| | Town. | County. | |
| Ampersand | Harrietstown | Franklin | August, 1911. |
| Arab | Piercefield | St. Lawrence | September, 1911. |
| Bald | Croghan | Lewis | May, 1911. |
| Black | Dresden | Washington | May, 1911. |
| Blue | Indian Lake | Hamilton | September, 1911. |
| Boreas | North Hudson | Essex | May, 1911. |
| Catamount | Colton | St. Lawrence | October, 1911. |
| Crane | Johnsburg | Warren | September, 1911. |
| Dunn Brook | Indian Lake | Hamilton | May, 1911. |
| Kempshall | Long Lake | Hamilton | May, 1911. |
| Makomis | North Hudson | Essex | September, 1911. |
| Ohmer | Day | Saratoga | October, 1911. |
| Owls Head | Long Lake | Hamilton | September, 1911. |
| Vanderwhacker | Minerva | Essex | May, 1911. |
| Wakeley | Lake Pleasant | Hamilton | May, 1911. |
| Woodhull | Wilmurt | Herkimer | September, 1911. |

The value of these stations for observing and locating fires is indicated by the record of fires reported from these observatories.

| Stations. | Number fires reported. | |
|---|---|---|
| | 1910. | 1911. |
| Ampersand*† | — | 1 |
| Bald* | — | 18 |
| Balsam | 4 | 3 |
| Beaver | 1 | 11 |
| Bellayre | 13 | 18 |
| Black* | — | 15 |
| Boreas* | — | 1 |
| Cat | 3 | 11 |
| Cat Head | 1 | 18 |
| Crane*† | — | — |
| Dunn Brook* | — | 8 |
| Fort Noble | — | — |
| Gore | 12 | 11 |
| Hamilton | 3 | 22 |
| Hunter | 3 | 7 |
| Hurricane | 3 | 22 |

---

* Not installed in 1910.

† In use but part of present season.

| Stations. | Number fires reported. | |
|---|---|---|
| | 1910. | 1911. |
| Kempshall* | — | 13 |
| Lyon | 3 | 30 |
| Makomis*† | — | 1 |
| Morris | 16 | 22 |
| Moosehead | 9 | 7 |
| Owls Head*† | — | 1 |
| Pharoah | 6 | 11 |
| Prospect | 13 | 16 |
| Snowy | 16 | 17 |
| St. Regis | 55 | 16 |
| Twadell‡ | — | 8 |
| Vanderwhacker* | — | 26 |
| West | 1 | 3 |
| Whiteface | 7 | 28 |
| Total | | 366 |

In connection with the establishment of these stations, it has in all cases been necessary to build telephone lines. I wish to call your attention to the hearty co-operation of landowners and others in this work, without which, in many cases, it would have been impossible to have established several stations. We enjoy the free use of over 100 miles of private lines of lumber companies, and, furthermore, the stations are in touch with their camps and a source of help in case of fire. This hearty co-operation demonstrates the value of the system and the landowners are materially assisting.

Your instructions to determine the actual demand for patrolmen, define districts which they are to cover and thus place this part of the work of the Commission on a definite basis, are being carried out and such information will be ready for your consideration at an early date. This will put the organization on a better basis than ever before and must increase its efficiency. In 1910 each patrolman had about 120,000 acres to patrol and protect. This year the number of patrolmen was judiciously increased from forty-eight to sixty-four and the size of a district reduced to approximately 100,000 acres each. The districts are, in many cases, still too large and provision should be made to increase the number of active patrolmen.

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* Not installed in 1910.
† In use but part of present season.
‡ Report for 1910 not available.

## RECOMMENDATIONS.

The value of our two great forest preserves is so great, not only commercially, but from the standpoint of protection to watersheds, as a great playground, health resort, game refuge, and source of wood material, in all of which the State is vitally interested, not only from the standpoint of State policy, but also as owner of several million dollars worth of property, that the State necessarily commits itself to a policy of protecting these great resources. In order to accomplish this work properly, a permanent annual force, sufficiently large and of the most efficient men, should be provided. The fire force consists (including observers on mountain stations), during the summer season, of approximately 100 men, while only about one-fourth are retained during the winter. The men thus dismissed in the fall find it difficult to secure employment during the winter and it usually becomes necessary to employ new and inexperienced men the coming year. The loss of trained men means decreased efficiency and the training of new men again, a waste of time and money. The great forest preserve needs protection, not only from fire in summer, but from trespass in winter; therefore, there is sufficient work to employ a much larger force during the entire year. These men would also be used in the enforcement of the top lopping law and surveying State lands. The position of fire patrolman should be abolished and that of forest ranger created. The latter should have all of the powers and duties of the present fire patrolman and have full police duties relative to protection of State lands. A permanent force of about fifty men, employed during the entire year at a salary of $720 per year, should be established. The title of fire superintendent should be changed to district forest ranger. The present official designated as special fire patrolman should be called fire warden, thus preventing any complication.

## THE FOREST PRODUCT.

In accordance with the provisions of the law, I submit herewith statement showing " amount of lumber manufactured and wood used for commercial purposes from timber grown in the State." These figures are for the calendar year 1910, as it is impossible, on account of the large amount of work required and, further, for the reason that several mills cut to the end of the year, to secure these statistics in time for the annual report of any year.

## FOREST PRODUCT FOR 1910.

| Species. | Lumber. Ft. B. M. | Pulpwood Cords. | Number of Mills Reporting. |
|---|---|---|---|
| Spruce | 113,357,500 | 392,680 | 406 |
| Hemlock | 150,659,000 | 46,259 | 1,500 |
| Pine | 72,753,000 | 2,607 | 1,081 |
| Maple | 55,633,500 | ........ | 1,205 |
| Beech | 31,655,000 | ........ | 825 |
| Birch | 25,227,000 | ........ | 585 |
| Basswood | 24,589,000 | 3,085 | 1,195 |
| Oak | 24,479,500 | ........ | 860 |
| Chestnut | 13,716,000 | ........ | 684 |
| Elm | 11,071,500 | ........ | 783 |
| Ash | 9,769,500 | ........ | 895 |
| Cherry | 2,623,000 | ........ | 356 |
| Poplar | 1,417,500 | 42,293 | 216 |
| Hickory | 1,345,000 | ........ | 232 |
| Miscellaneous | 919,500 | ........ | ...... |
| Balsam | * | 39,820 | ...... |
| Total | 519,215,500 | 526,744 | 2,225 |

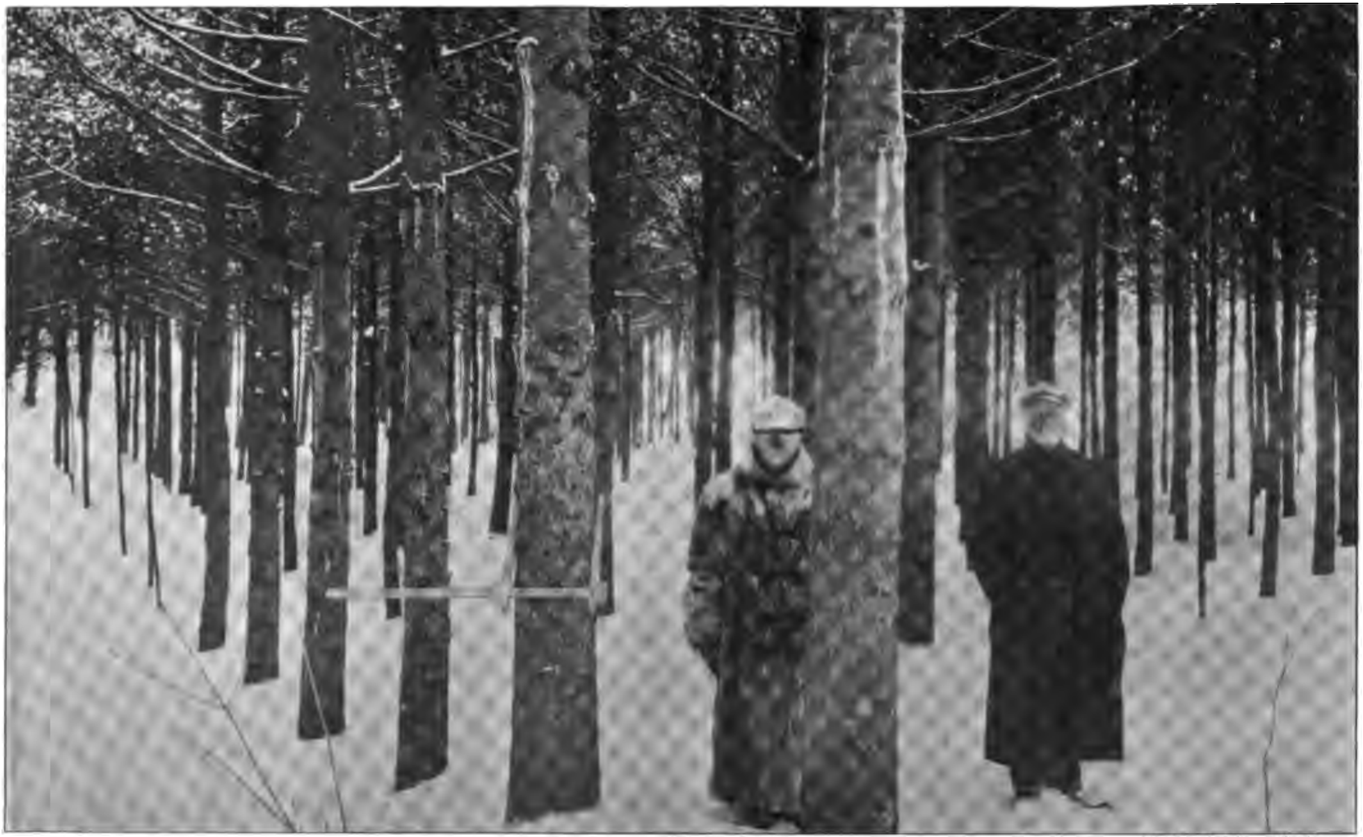
## MISCELLANEOUS MATERIALS.

| | | |
|---|---|---|
| Round wood for alcohol, excelsior, cooperage kilns, etc. | 217,915 | cords |
| Shingles | 40,465,750 | pieces |
| Lath | 49,769,400 | pieces |
| Heading | 19,724,149 | pieces |
| Staves | 59,346,950 | pieces |
| Railroad ties | †804,479 | pieces |
| Fence posts | †467,536 | pieces |
| Telegraph poles | 28,332 | pieces |

---

* No separate report for balsam. It is included in the total for spruce.

† The data as to ties and posts are those reported by saw mills and do not include those cut by others. The estimated quantity is 1,300,000 ties and 2,000,000 fence posts.



C. R. Pettis, Photo.

WHITE PINE PLANTATION, CHESTERTOWN, WARREN CO., N. Y.
Twenty-eight Years Old, 24,000 Feet Lumber per Acre.

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### CLASSIFICATION OF MILLS ACCORDING TO QUANTITY OF LUMBER PRODUCED.

| | | | | | | |
|---|---|---|---|---|---|---|
| Number that cut | 10,000,000 | to | 20,000,000 | ft. | lumber | 5 |
| Number that cut | 5,000,000 | to | 10,000,000 | ft. | lumber | 4 |
| Number that cut | 2,500,000 | to | 5,000,000 | ft. | lumber | 10 |
| Number that cut | 1,000,000 | to | 2,500,000 | ft. | lumber | 48 |
| Number that cut | 500,000 | to | 1,000,000 | ft. | lumber | 138 |
| Number that cut | 200,000 | to | 500,000 | ft. | lumber | 348 |
| Number that cut | 100,000 | to | 200,000 | ft. | lumber | 423 |
| Number that cut | 50,000 | to | 100,000 | ft. | lumber | 437 |
| Number that cut | 25,000 | to | 50,000 | ft. | lumber | 301 |
| Number that cut | less | than | 25,000 | ft. | lumber | 274 |
| Total number reporting lumber cut | | | | | | 1,988 |

### THE RESULT.

The forest product included in lumber, pulp and round wood for the past three years is as follows:

| | |
|---|---|
| 1908 | 1,226,754,365 ft. b. m. |
| 1909 | 1,091,164,710 ft. b. m. |
| 1910 | 927,933,291 ft. b. m. |

The annual removal of 1,000,000,000 feet of wood material from our forest cannot go on indefinitely, and the figures show a decrease of 300,000,000 feet or 25 per cent. in three years. The most authoritative statement as to the area of forests in the State, containing merchantable saw timber, is less than 6,000,000 acres. These figures include over one and a half million acres of State lands upon which there is no cutting. The timber cut reported would cover 22,956 acres or thirty-six square miles, with boards one inch thick. The lumber cut averages 150 feet per acre for the entire merchantable forest area, but as a matter of fact this cut was secured from only a part of this area and when all of the governing factors are carefully considered, it is probable that the cut was not less than five times as much as the growth. The increase in stumpage prices and advent of the portable mill are to-day producing an extraordinary amount of material and will soon result in a greatly diminished annual product. The owner who applies forestry principles to the management of his land and cuts conservatively, is making an excellent investment.

## REFORESTING.

The correspondence, examinations, personal requests and general interest in this subject has increased so rapidly, that the department will soon need to assign at least two foresters permanently to this work. The five established nurseries at Saranac Inn, Lake Clear Junction and Salamanca were operated to their full capacity. A new nursery of about seven acres was made near the Coosa springs at Saratoga and plans are now being put into effect for another at Comstock. At the latter place a very large nursery will be established and prison labor utilized. The recommendation of Gov. John A. Dix to use this labor for the purpose of producing desirable planting material at a low price, that waste land may be made to produce necessary wood material, will be commended by all; and his plan will doubtless solve the problem — how to secure sufficient trees at a low price for reforesting the enormous area of idle land suitable only for forests.

### STOCK ON HAND.

The six nurseries now contain the following stock:

| | |
|---|---|
| White pine transplants, four years old............. | 535,000 |
| White pine transplants, three years old............ | 3,336,500 |
| White pine seedlings, two years old............... | 3,329,000 |
| White pine seedlings, one year old................ | 3,775,000 |
| Scotch pine transplants, three years old........... | 1,541,500 |
| Scotch pine transplants, two years old............. | 230,000 |

| | |
|---|---|
| Scotch pine seedlings, two years old | 1,020,000 |
| Scotch pine seedlings, one year old | 498,000 |
| Red pine transplants, three years old | 80,500 |
| Red pine seedlings, one year old | 230,000 |
| Norway spruce transplants, three years old | 165,000 |
| Norway spruce seedlings, two years old | 543,000 |
| Norway spruce seedlings, one year old | 372,000 |
| European larch transplants, three years old | 9,000 |
| European larch transplants, two years old | 45,000 |
| European larch seedlings, two years old | 20,000 |
| Black locust seedlings, one year old | 40,000 |
| Total trees in nurseries all ages | 15,769,500 |
| Carolina poplar cuttings | 150,000 |
| Basket willow | 125,000 |

The larger part of the transplants and sufficient seedlings will be ready for field use the coming spring.

### PRIVATE PLANTING.

The orders and sales greatly increased the past year. The number of sales to private parties for the past three years has been as follows:

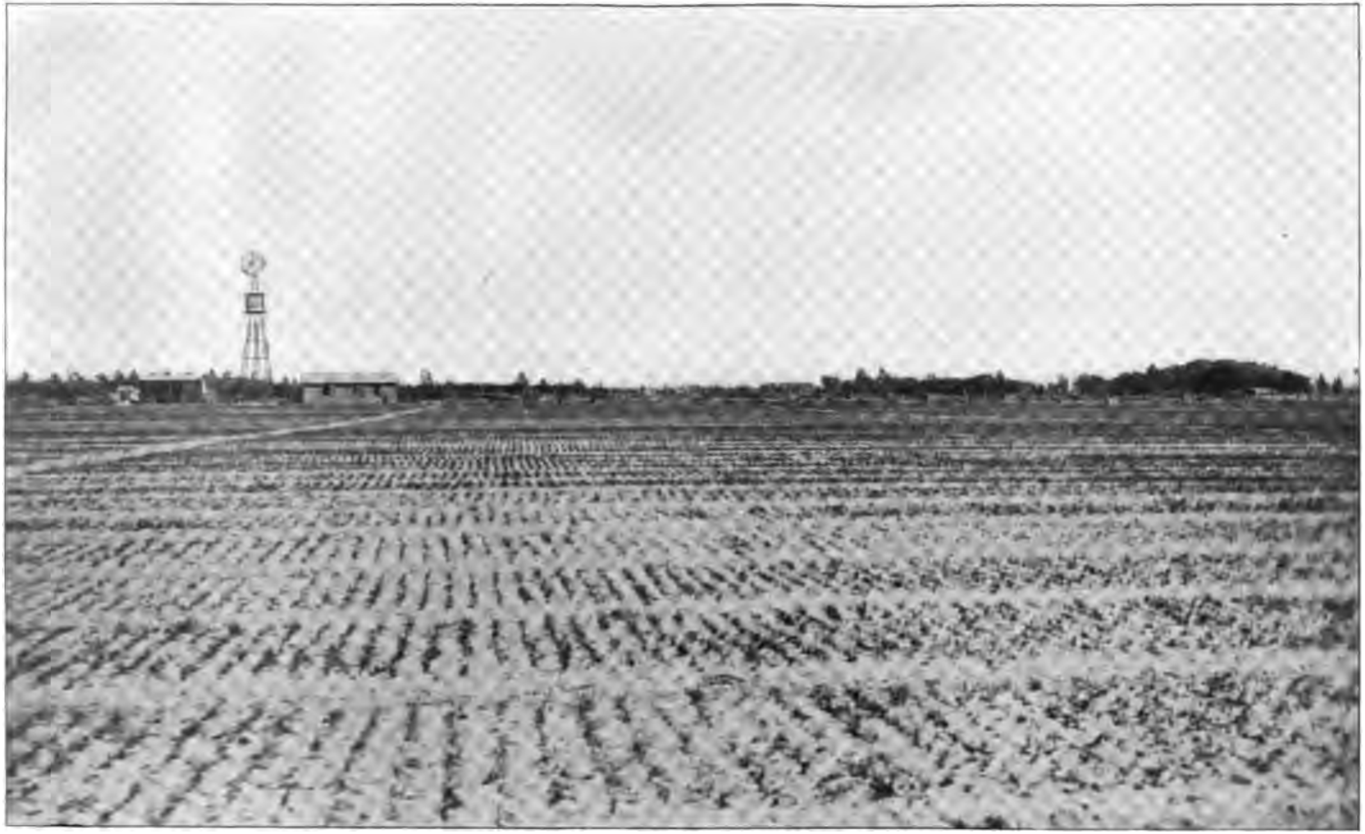
| | |
|---|---|
| 1909 | 189 orders |
| 1910 | 313 orders |
| 1911 | 410 orders |

The orders for the year aggregated 2,037,270 trees; 1,670,370, which was all we could furnish, were sold. The supply for 1912, now in our nurseries, ought to be sufficient not only to supply the entire demand, but also to furnish trees to continue the important work of reforesting denuded State lands in the forest preserve.

### TREES SOLD IN 1911 — BY COUNTIES.

| | | | |
|---|---|---|---|
| Albany | 23,900 | Onondaga | 29,500 |
| Allegany | 4,500 | Ontario | 4,000 |
| Broome | 3,250 | Orange | 27,200 |
| Cattaraugus | 31,250 | Orleans | ...... |
| Cayuga | 1,000 | Oswego | 41,000 |
| Chautauqua | 6,250 | Otsego | 59,400 |
| Chemung | 17,000 | Putnam | 7,250 |
| Chenango | 41,900 | Queens | ...... |
| Clinton | 30,400 | Rensselaer | 21,500 |
| Columbia | 7,800 | Richmond | ...... |
| Cortland | 200 | Rockland | 23,500 |
| Delaware | 24,600 | St. Lawrence | 103,000 |
| Dutchess | 68,250 | Saratoga | 128,500 |
| Erie | 7,500 | Schenectady | 1,600 |
| Essex | 54,800 | Schoharie | ...... |
| Franklin | 60,850 | Schuyler | ...... |
| Fulton | 74,500 | Seneca | 3,000 |
| Genesee | 3,500 | Steuben | 6,000 |
| Greene | 3,500 | Suffolk | 32,300 |
| Hamilton | 9,000 | Sullivan | 12,220 |
| Herkimer | 130,900 | Tioga | 2,500 |
| Jefferson | 6,000 | Tompkins | 1,450 |
| Kings | ...... | Ulster | 14,600 |
| Lewis | 45,700 | Warren | 126,000 |
| Livingston | 68,000 | Washington | 2,500 |
| Madison | 13,000 | Wayne | 11,000 |
| Monroe | 4,000 | Westchester | 127,000 |
| Montgomery | 4,700 | Wyoming | 5,400 |
| Nassau | 53,000 | Yates | ...... |
| New York | 2,000 | | |
| Niagara | 1,000 | | 1,670,370 |
| Oneida | 77,700 | | |

The reports from purchasers show the same relatively high percentage of success. The indications at this early writing are that the demand will, next year, show a large increase in the number of orders and sales.



Forest Nursery, Delaware & Hudson Company, Bluff Point, N. Y.

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## THE FOREST PRESERVE.

The greatest need at the present time in connection with the administration of the forest preserve is to determine the location and establish for the future the boundaries of the State's holdings. The appointment of an expert surveyor as chief of surveys is the best mark of progress along this line that has taken place in a long time. The enormous extent of these boundary lines (9,146 miles) presents a large problem, but one which can be worked out if sufficient funds are available. The records must be searched to secure notes of old surveys and many maps must be made. There ought to be $25,000 a year available for these surveys. The State has acquired these 1,600,000 acres of land in various ways and this commission is charged with their protection, but the first principle of any policy of property protection is to locate and mark boundaries, which unfortunately has not been done in too many instances. The demarcation of property lines will be of great assistance to the field force, also to adjacent owners, and will do much to reduce trespass upon the lands of the State.

Trespass upon State land has been materially reduced in the past year and, with very few exceptions, was of small extent and related to dead material. All cases as received have been submitted to your board.

The question of use of the great area included in the forest preserve and the best use of this great forest deserves the most careful consideration and study of every citizen. The questions of leasing camp sites, included in approximately 400 miles of lake and pond frontage; applying forest management to this enormous holding; the sale or exchange of the several hundred parcels of land outside of the Adirondack and Catskill parks, embracing 138,625 acres; authority to construct necessary public roads across State lands, and take essential steps to insure the safety or future of this great asset, should be carefully and fully studied.

## STATE FOREST PROBLEMS.

### FOREST FIRES.

The woodlands and forests are deserving of as much consideration and protection in one part of the State as in another, but unfortunately only a small portion of our forest lands is receiving protection. New York is the only State in the northeast that does not exercise supervision or authority over forest fires in the entire State. The law should be amended to give this commission authority to organize in any section of the State, outside of the ninety-six fire towns in the forest preserve, where the forests are threatened and forest interests are sufficient, a suitable fire organization to be paid for by the territory protected and towns benefited. All local officers should also be required to make reports to the commission and sufficient authority given to compel them to faithfully perform their duties in connection with preventing and suppressing forest fires.

## RAILROADS.

The law now in force relative to railroads should also be amended to cover the entire State, wherever the value of property or danger from fire demands. This work should be accomplished with not more than one additional inspector and the co-operation of the Public Service Commission.

## CHESTNUT BARK DISEASE.

The prevalence and destructive effects of the chestnut bark disease have received much attention during the summer. In co-operation with the State Department of Agriculture a survey to determine its extent and general condition has been completed, covering the eastern half of the State. This matter is of so much importance, the future of the chestnut as a forest tree of so much consequence, that the work ought to be carefully followed up. A conference was called by Hon. R. A. Pearson, Commissioner of Agriculture, which was attended by representatives of Pennsylvania, New Jersey, Massachusetts, Connecticut and this State. The details of the work will be incorporated in a special report at a later date.

## FUNGUS TREE DISEASES.

This disease, together with our former experience with the white pine blister rust and many other serious fungus troubles, requires the services of an expert plant pathologist. The nature of nearly all of our tree diseases, the agencies by which they are spread and methods of control, are almost unknown. The great forest wealth of this State may, at any time, become subject to ravages of other diseases. The millions of shade trees on our lawns and along the streets are an asset that cannot be measured in cash, and they too are a prey to these fungi. The appointment of a competent pathologist to study our tree diseases is an absolute necessity and no wiser expenditure of money could be made.

### STATE INSTITUTIONS.

A forester was detailed at the request of the Fiscal Supervisor of State Charities, Superintendent of Prisons and State Board of Lunacy, to make an examination of lands under their various charges and report as to proper forest management. The examination has already been completed at thirty-eight institutions, embracing 29,000 acres, and reports will be ready for transmittal at an early date. The proper management of these forest areas will not only result in greater profit to the State, but will afford excellent object lessons in their localities.

### PRIVATE CO-OPERATION.

The requests for examination of private forests have greatly increased this year and a very large number of such inspections have been made and advice given. These are excellent examples of the demand for technical advice and the application of rational forest management. We have also been requested by a large number of companies to give them advice in regard to the practice of forestry on their holdings. In order to give proper advice, it will be necessary to make studies to determine the rate of growth of various species and this work should be done at once.

### EXTENSION AND EDUCATION.

The demand for lectures on forestry has been satisfied as far as our time would permit, consistent with other duties. A forester will be assigned to lecture work during a portion of the winter and new publications will be prepared. There have been issued this year Bulletin 4 "Forests of Oneida County" and Bulletin 6 "Forests of Warren County." Other bulletins relating to Shade Trees, General Forestry and the Chestnut Bark Disease are in preparation.

ALBANY, N. Y., *December* 15, 1911.

Respectfully submitted,
C. R. PETTIS,
*Supt. State Forests.*

# DIVISION OF FISH AND GAME.

| | |
|---|---|
| THOMAS H. GUY | *Deputy Commissioner.* |
| LLEWELLYN LEGGE | *Chief Game Protector.* |
| TARLETON H. BEAN | *Fish Culturist.* |
| ROBERT A. WIDENMANN | *Superintendent of Marine Fisheries.* |

# CONSERVATION COMMISSION.

## DIVISION OF FISH AND GAME.

*To the Conservation Commission:*

Gentlemen.— In submitting the annual report of the Division of Fish and Game it is especially gratifying to state that the work of this division has progressed far beyond any point heretofore reached. Reference to the fact that almost $156,000 was collected for hunters' licenses for the year ending September 30, 1911, practically all of which were issued at a dollar each, may serve to indicate in some slight degree the extent of the public interest in the matters committed to the jurisdiction of this division. The above figures show an increase of nearly $14,000 over the receipts of the previous year.

The operation of the so-called "Bayne-Blauvelt Law," which went into effect on September 1, 1911, prohibiting the sale of game, except certain species, and providing for the tagging of such varieties as were entitled to be marketed, is demonstrating the wisdom of the act, and is unquestionably a step in advance in further protecting native game from market hunters. The law has produced in the few months of its operation $16,265 in revenue from the sale of 325,300 tags, and appears to be well observed, but few violations being reported. It is on the whole satisfactory to the public as well as to the dealer, who finds in the tag attached to the game, which he purchases, a degree of protection which was unknown under the former law. In the city of New York from September 1, 1911, to January 1, 1912, there were imported from Europe and tagged:

| | |
|---|---|
| Pheasants | 33,169 |
| Scotch grouse | 16,257 |
| Black game | 39,804 |
| Black plover | 16,807 |
| Red leg partridge | 21,721 |

| | |
|---|---|
| Egyptian quail | 21,786 |
| Carcasses of venison | 1,502 |
| Native park raised duck | 125 |
| | 151,171 |

In addition to the above the following species held in storage from the previous year were tagged before January 1, 1912:

| | |
|---|---|
| Scotch grouse | 1,480 |
| Black game | 2,702 |
| Black plover | 29,260 |
| Red leg partridge | 3,244 |
| Egyptian quail | 40 |
| Carcasses of venison | 872 |
| | 37,598 |

Our brief experience with the operation of this law opening, as is seen, the markets of the State to a large influx of foreign game has served to direct attention to the possibilities of domesticating deer and certain varieties of game birds, and breeding them for market purposes. It is undeniable that we in common with our sister States have constantly overlooked the economic value of our native birds and quadrupeds, and confined ourselves almost exclusively to preserving the various species from extinction for reasons largely sentimental and for the benefit of a necessarily limited class of sportsmen. That European countries have been able to send here such large quantities of game, billed to the importers at reasonably low prices, emphasizes the necessity of encouraging the development of a new source of supply which under proper regulation ought, at no distant date, to furnish great quantities of palatable and wholesome food.

There are in this State many large tracts of land which could not possibly be made arable, and much of it not even suitable for the pasturage of cattle. Such lands would afford excellent parks for the propagation of deer for commercial purposes. A few attempts have been made along these lines even within our own borders; although none of them have been extensive they have on the whole been satisfactory. Deer raised in captivity require much less attention than cattle, and very little feeding even in winter. A doe generally has two fawns a year so that reproduction is rapid. Every portion of the carcass can be utilized as completely as in the case of cattle, so that the element of waste is negligible. Deer bred in private parks show little disposition to stray, and become tame and easily managed.

The breeding of pheasants is attracting the attention of a considerable number so that during the past year 374 applications have been received for stock birds, and 422 applications for eggs. Upon these 2,530 birds and 12,945 eggs were supplied. It is expected that during the present year there will be distributed 5,000 birds and 30,000 eggs. It has been shown by experiment that pheasants are the most satisfactory of the game birds for breeding purposes, and it is not too much to expect that in the near future it will be possible for us to supply the market with large quantities of domestic stock.

## FISH.

This has been the banner year in our fish hatcheries.

The total number of fish furnished for public waters during the fiscal year ended September 30, 1911, was 701,448,394, an increase of more than 30 per cent. over the distribution of 1910. In 1907 the entire output of the nine hatcheries was 250,656,600 fish.

The cost of maintaining the hatcheries in 1911 was about $75,000, while the value of the output, based upon actual prices of fish from commercial hatcheries and from market rates of food fish of the kind which we propagate, was $212,115.42. This does not include the brood trout of several of our hatcheries which are worth nearly $8,000.

The whole number of trout of various kinds furnished by the stations was 7,676,388, of which about 45 per cent. were fingerlings.

Some of the hatcheries are less productive than others, but due allowance should be made for location, water supply, natural advantages and proximity to fishing grounds having species suitable for artificial culture. The general results are so favorable as to merit approval for the work as a whole, and improvements are being made as rapidly as facilities will permit.

From its geographical position, and because of its splendid water supply, the Long Island Hatchery is the most profitable of all. Its annual yield is about one-half of the entire output of the nine stations. Far more important results could be obtained on Long Island if the commission should establish, in suitable locations, a biological station for the study of aquatic life and some additional hatcheries for the propagation of marine species, and especially shellfish and crustacea. Among the shellfish the oyster has received no attention whatever so far as study of its artificial culture is concerned. While it is true that no government, either Federal or State, has made great progress in the artificial rearing of oysters, yet sufficient is known to encourage the belief that oyster culture can be placed upon a basis of commercial importance. New York ranks so high in value of its industries based upon oysters, clams and other mollusks that it should engage earnestly in the study of the subject, and should establish methods which will enable the people engaged in those industries to increase the supply and bring it within the reach of the poor man's purse.

One of the most serious drawbacks in our present fish cultural operations is the lack of useful information about the diseases of fish. We have no one in the State service who is directly engaged in the study of bacteria which cause epidemics among trout. In connection with the Biological Laboratory, it would be easy to secure the services of some of the most eminent scientific men in the country providing that the essential facilities for laboratory work were furnished them. The results for fish culture would be inestimable.

Perhaps the most unfortunate condition observed at some of our stations is due to pollution of hatchery waters by drainage and sewage. It is true that this condition is provided for in the present law; but in actual practice satisfactory remedies have not yet been found, and much damage has been done to brood trout. The state of affairs at Caledonia is one of the best illustrations of the harm that can be done by such pollution. Caledonia ought to be the most important trout station in the State; but at the present time its efficiency is sadly impaired by drainage from outhouses, manure heaps, etc. The station at Bath was in a similar condition until we changed the water supply entirely, and since that improvement the hatchery has become one of the finest in the State.

New York has nearly 400 species of fish in its waters, more than one-half of which are marine. Unfortunately there has not been a zoological survey, so far as relates to inland waters, for a half century or longer, and we are not in possession of such practical knowledge of our aquatic resources as we should have.

In transmitting the report of the Superintendent of Marine Fisheries I beg to call attention to the growing importance and great possibilities of this Bureau and to emphasize the necessity of suitable legislation if its resources are to be developed to anything approaching their limit.

The State in the past has given away, for little or no compensation, to individuals by grants in perpetuity, and has ceded to towns and counties on Long Island thousands of acres of its most valuable shellfish lands. It was not until 1908 that the first genuine advance was made giving recognition to the economic value of our marine fisheries. By franchises the State has thus disposed of about 16,000 acres while the acreage under lease is slightly less. About 70,000 acres are under local jurisdiction exclusively, paying no revenue to the State. Most of the lands leased pay an annual rental of $2 per acre, and the present law provides a uniform annual tax of twenty-five cents per acre. From these two sources a total revenue of $20,583.90 was received for the fiscal year. Contrast this with the fact that the State of Rhode Island with about 17,000 acres under lease derives an annual revenue of $133,000 therefrom and it becomes obvious, the extent to which the State has been wronged through unwise shellfish legislation. The ill-advised character of the present system of taxation by which a tax of twenty-five cents per acre is levied upon all shellfish lands regardless of value or productivity has been called to public attention so many times as to make mention of it here superfluous. There unquestionably is a strong difference of opinion concerning the proper method of taxing shellfish lands. This State should adopt either a system of assessment for these lands based upon their value after an intelligent appraisal or a small tax per bushel of product should be levied. Both of these methods are in vogue in other States. Rhode Island and Connecticut have adopted the former method, while the latter is found upon the statute books of Maryland and Louisiana. In 1910 the Legislature of Connecticut authorized a commission to investigate oyster properties and to present to the Legislature its recommendations and proposed legislation for the purpose of carrying them into effect. This work was done in a thorough and exhaustive manner, and the report to the Legislature made by this commission is of particular interest to us by reason of the fact that it recommends the imposition of a tax upon each bushel of product as being the fairest method and suggests that the law taxing oyster franchises be amended: "To provide for a minimum tax of $10 per acre for all grants held under such franchises at the present tax of fifteen mills and in addition a productivity tax of two or three cents per bushel upon all seed or other oysters taken from such grants in this State for sale or for the purpose of removal out of the State. The act also should provide for confidential reports by the producers and a proper system of State inspection of same. All to be under the direction and supervision of the Shellfish Commission." If our law were amended to provide for an annual tax of two cents per bushel upon all shellfish produced and sold it is believed that a revenue of at least $125,000 could be derived therefrom. All of which should be used and made available for the Bureau of Marine Fisheries for the purpose of affording greater protection to the lands devoted to shellfish culture, the expenses incident to sanitary inspection, and for the maintenance of a marine hatchery and a biological station on Long Island where scientific methods of shellfish culture could be studied.

With proper tax laws, with proper netting regulations and a system of equitable net and trap licenses a great increase in the revenues and development of the Bureau of Marine Fisheries is possible.

I herewith append the annual reports of the State Fish Culturist, the Chief Game Protector and the Superintendent of Marine Fisheries. All of which is respectfully submitted.

THOMAS H. GUY.

Dated December 30, 1911.

# ANNUAL REPORT

OF THE

# CHIEF GAME PROTECTOR.

# ANNUAL REPORT OF THE CHIEF GAME PROTECTOR.

*To the Hon. Thomas H. Guy, Deputy Commissioner, Division of Fish and Game:*

SIR.— I respectfully submit herewith my report on the enforcement of the Forest, Fish and Game Law of the State of New York for the year 1911. The statistical tables which follow show a substantial increase in the number of cases prosecuted. The regular protectors prosecuted this last fiscal year more cases than during the preceding year, having a gain of fifty-four. The apparent deficiency in recoveries is occasioned by reason of the $14,000 recoveries in two actions prosecuted against parties in New York city during the fall of 1909. If this recovery of $14,000 is excluded from last year's total, there is a net gain in recoveries over last year of $323.35.

The special protectors did not equal last year's record in the number of cases prosecuted, having only 258 cases to their credit this year as compared with 323 cases last year; but the recoveries are more favorable. In the 323 cases prosecuted in 1910 the recoveries amounted to $6,551.08; this year the recoveries amount to $6,195.80. When it is taken into consideration that but 83 special protectors performed work as against 104 last year, it will be noticed that while fewer specials worked, the average gross recovery was larger, while the average expense for prosecuting a case is less than for the preceding year. This, no doubt, is due to the fact that in February, 1910, many of the special protectors were dropped from the force for nonperformance of work, which makes it apparent that the active specials performed greater service because of the weeding out of the inactive ones.

The average gross recovery and costs in each case is very commendable, in view of the fact that all men prosecuted were not fined. The majority, of course, were; but many received suspended sentences on pleas of guilty, others were acquitted from John Doe proceedings, and twenty-three persons were sent to jail for a collective period of 1,123 days.

## CODIFICATION OF THE GAME LAWS.

The law passed at the last session of the Legislature, providing for the codification of the Game Law, should have the indorsement of every sportsman of the State of New York, as the present law is very complicated, and not readily understood by the sportsmen at large. As the codified laws are to be reported to the Governor of the State of New York not later than January 15th, and as the Conservation Commission employed experts to have charge, under its direction, of the codification, assisted by the heads of the different departments of the Division of Fish and Game, it will therefore be unnecessary to make any recommendation in relation to game law amendments in the annual report, as all such recommendations will be made to the committee having the codification of the game laws in charge. In placing this matter before the codification committee, I endeavored to make it plain that the game laws can only be enforced when they appeal to the common sense of the sportsmen. If they are considered unjust and ill advised, an army of protectors cannot enforce them. As the department has only ninety-five game protectors at the present time, and as there are more than 200,000 sportsmen in the State, who hunt, fish and trap, it is a difficult problem to apprehend every violator of the law. The majority of sportsmen desire to see game increase by the enforcement of proper common sense laws. Unwise laws are apt to be dead letters, observed by a few honorable sportsmen, it is true, but violated without hesitation by the many, who consider them unjust, and realize that the danger of detection and of punishment is improbable, save when one of the game protectors happens to be on the spot.

Every time the Game Law is violated with impunity, the moral sense of the violator is weakened and his respect for the law is lessened; but if the sense of the community in which he resides is in favor of a strict enforcement of the law, the breaker of that law will be severely judged by his associates. Let the game laws be so worded as to meet the wishes of conservative sportsmen, and there will be less flagrant violations than there are at the present time.

I do not think it is advisable to waste time striving to pass local game laws, but have recommended that all proposed changes in the present law be restricted as far as possible to those which are based on broad gauge principles and will recommend themselves to the large majority of sportsmen who, while earnestly wishing to preserve our fish and game, still think that a reasonable amount of sport should be enjoyed.

## SPECIAL PROTECTORS.

On January 1, 1911, there were 566 special protectors scattered throughout the State, a great many of whom never made reports as required by law to the department. Therefore it was deemed advisable to reorganize the special protector force, retaining those whom the division chiefs certified to as being interested in their work; making it necessary to dispense with the services of 359 specials. The remaining 207 were placed in divisions under a division chief having charge of the territory in which the special protector lived, with instructions from the department to make a monthly report of all game violations occurring in which he had been interested. They were further notified that they should look to the division chief for instruction and assistance in matters of game protection. So that the specials could successfully carry on their work, they were furnished a supply of blanks, and the same printed instructions that were sent to regular protectors.

I am glad to state that the reorganization of the special protectors has been the means of better perfecting their work, giving better protection to the birds and game of the state. They have also been more successful with the prosecution of misdemeanors of the game law, with a less expense to the state, and have carried out the instructions in relation to reporting monthly to the division chief.

## INTERPRETATION BY THE ATTORNEY-GENERAL OF SECTION 98 OF THE FOREST, FISH AND GAME LAW.

In May, 1910, chapter 256 of the Laws of 1910, providing for the protection of wild birds in this State, was enacted. This is section 98 of the Forest, Fish and Game Law, the provisions of which were to take effect July 1, 1911. Sciama & Company, a corporation engaged in importing and dealing in birds' plumage, brought an action in the United States Circuit Court, Southern District of New York, for an injunction restraining Attorney-General Carmody and Forest, Fish and Game Commissioner Fleming from enforcing its provisions upon the ground that it was unconstitutional because it deprived this corporation of its property without due process of law and denied it the equal protection of the law in violation of the Fourteenth Amendment of the Constitution of the United States. It was alleged that at the time the act became a law Sciama & Company had on hand for sale $60,000 worth of plumage and feathers prohibited by the statutes and that between the time it became a law on May 7th, 1910, and the date when it took effect on July 1st, 1911, it had not had time to dispose of the $60,000 worth of plumage, and that the statute violates the Constitution in depriving it of the right of disposing of the balance. The direct attack upon the law was that the Legislature had no right to classify birds into families for no such classification had ever been universally agreed upon and dealers could not tell whether they were or were not violating the law.

The Attorney-General presented to the court a number of affidavits of world-famed ornithologists to show that the attack on the law was unjustified and that the Legislature adopted a correct standard in classifying birds by way of families.

The case was argued before Hon. Henry W. Ward of the United States Circuit Court in New York City, September 29, 1911. The attorneys for the complainant were Mayer and Gilbert and Hon. Julius Mayer argued the case for complainant.

Judge Ward, before whom the case was argued, held that the law did not violate the Fourteenth Amendment and denied the motion.

## TRANSPLANTING FISH.

Upon being apprised of the fact that the construction of the Croton reservoir would make it necessary to drain Kensico lake, a protector was placed in charge of the work of saving the fish, and with the assistance of the sportsmen of Westchester county 5,614 game fish, mostly black bass, were transferred from Kensico lake to Rye, Byron, Tompkins and Silver lakes and Pleasantville reservoir. While the majority of the fish transferred were small mouth black bass, there were several brook trout, a large number of pickerel, white perch, catfish, eels and suckers.

The largest fish taken was a large mouth black bass weighing 7½ lbs. The next in size was a small mouth black bass weighing 5 lbs. 6 ounces. The largest pickerel taken during the nine days that it took to transfer the fish was four pounds, and a yellow perch was taken that tipped the scales at two pounds. At one single haul of the seine 750 fish were taken, and in one day there were 1,500 taken and transferred to the above waters. In addition to the game fish there were thousands of chubs and other fish transferred to the other waters as food for the game fish.

## EXCLUSION OF GAME BIRDS—INTERPRETATION BY ATTORNEY-GENERAL CARMODY OF FOREST, FISH AND GAME LAW OF THE STATE IN REFERENCE THERETO.

" The provisions of the Game Law of the State, whereby certain game birds of foreign countries are excluded and certain others admitted, are not based upon geographical lines but are governed by ornithological classifications. The scheme of the statute is to permit the importation of such game birds as do not resemble those native to the State of New York and to prevent the importation of such as do resemble those native to the State, the purpose being to protect the native birds and not to grant or deny commercial favors to other nations.

### INQUIRY

by the Honorable Consul-General of Norway as to the meaning of section 96b of the State Game Law, which provides that the unplucked carcasses of certain game birds therein specified may be imported into the United States, provided certain conditions therein named are observed, and claiming that this section may discriminate against the game birds of Norway, between which nation and the United States there exists a treaty containing what is known as the favored nation clause, which provides that no discrimination as to imports and exports of the United States and Norway shall be made in favor of articles of a like nature from other countries.

### OPINION

" The provisions of section 96b of the State Game Law, so far as involved in this inquiry, are as follows:

" 'The unplucked carcasses of pheasants of all species, Scotch grouse, European black game, European black plover, European red legged partridges and Egyptian quail may be imported into this State from without the United States and sold therein from September 1st to March 1st, both inclusive, provided that immediately upon their importation and before they shall have been sold by the importer there shall be affixed tags or seals," etc.

" The names used in the above section to specify different kinds of game birds are not geographical, but scientific. The provision is a part of the Game Law of the State, enacted pursuant to its police powers, now clearly recognized by our courts, and has for its purpose the protection of game birds native to the State of New York or belonging to families, specimens of which have been or are found or may exist within the State.

" The term 'Scotch grouse' is used to designate a particular species of bird, known scientifically as *lagopus scoticus,* found in all of the British Isles, and is commonly called simply " grouse," sometimes 'red grouse,' or 'moor fowl.' It is not used to designate grouse from Scotland. This species is found quite as abundantly in England, Scotland, Ireland, the Hebrides and the Orkneys. If found in Norway or any other country it would be admitted into this State under the above section.

"The term 'European black game' is commonly applied to a species of which the male is called the 'black cock' and the female the 'grey hen,' and is classified scientifically as *lyrurus tetris.* The designation 'European black game' describes the particular species, and not the location where it is found. As a matter of fact, this species is found in Norway and in most European countries and may be imported under the above section.

"'European red legged partridges' refer to the several species of this genus found in the various European countries north of Belgium. It is also found to some extent in Great Britain, in the mountains of Southern Europe and in Northern Africa and Sardinia. The word is used in the plural for the purpose, apparently, of including all species of the genus in which the partridge is included. If found in Norway it would be admitted into this State. The term 'Egyptian quail' used in the section does not refer to quail found in Egypt alone, but is the common migratory quail of Europe.

"The term 'European black plover' used in the section, is unknown to scientific classification. I am therefore unable to determine to what genus or species of birds it may be applied.

"It will be seen from these specific classifications that the general intent of the law is to admit or reject birds by families or species, rather than by geographical territory, and this for the purpose, not of granting favors to certain nations and withholding them from others, but for the purpose of preventing the importation into this State of birds so closely resembling our native species as to permit the slaughtering of the native species and their possession for the purpose of sale, under the claim that they are imported from foreign countries.

"All of the species specified in section 96b are admitted, no matter in what part of the world they are found. Many of them, according to climatic conditions may be, if they are not, native of Norway. The learned Consul-General asks whether or not the above section is meant to exclude Norwegian grouse or ptarmigan, while admitting grouse from Scotland. The exclusion of Norwegian grouse or ptarmigan is based upon the resemblance to birds native of the State of New York. There are two species of the Norwegian grouse or ptarmigan (the terms are used interchangeably), one of them, the *lagopus lagopus,* is identical with our American Willow ptarmigan, while the other is indistinguishable from our Rock ptarmigan in its winter plumage and closely resembles it at other seasons. These species are not only found in Norway but in other countries of Northern Europe, and are excluded no matter from what country they come, simply because of their similarity to our native species.

" If there be any discrimination against the game of Norway as a matter of fact, by reason of the principles underlying our State Game Law, it is due to the geographical position of Norway, and applies equally to all countries lying in the same latitude. Many of the birds of Northern regions are the same in the Eastern and Western hemispheres. The greater the distance from the Arctic regions the more difference is there between the species of the two Continents. The ptarmigan, for instance, is a bird of far Northern distribution. Hence the close similarity between the ptarmigan of America and those of Europe. On the other hand, the pheasants, the red legged partridges and the Egyptian quail belong to groups of more Southern distribution and are wholly different from any American species, and belong to different families from birds of similar names found in this State.

" It will therefore be seen from this specific discussion of the classification mentioned in section 96b of the State Game Law that there is no intention of violating the favored nation clause in the treaty between the United States and Norway or other countries, and that there actually has been no violation of the terms of those treaties."

## DEER.

The game protectors stationed in the Adirondack region report that as a whole the deer are more plentiful this year than ever before, but in some parts of the Adirondack regions, particularly in the vicinity of Long Lake West, the deer are not as plentiful as formerly, as there were a great many of them winter-killed during the past winter. To meet this situation an appropriation was made during the last session of the Legislature which is to be used for the purpose of preserving the deer from starvation. For purposes of experiment hay was cut from the different beaver meadows throughout the Adirondacks, and placed upon cribs in small cocks. At the time the hay is moved and stacked, salt is placed in the cock, which induces the deer to eat it readily, although it is not their native food.

The department receives during the year a great many bills from persons from different parts of the State for damages done by deer and other game. The following is one of the bills sent to the department during the past year. The name of the party claiming damages is omitted, though the letter is given verbatim:

> "May and June. To damage done by a buck deer for chasing cows and young cattle through the pasture and woods, and scattering them, and so frightening them it was almost impossible to get them home for ten days, and compelled me to build fence on another part of my farm at an expense of $20 to me, in order to keep them away from the deer. I claim damage to cows and shrinkage on milk, and time hunting and chasing them up, $35; extra fence building, which I was compelled to on account of deer, $15; total damage claimed by me is $50.00."

The commission has no funds for paying such bills, or law under which they can be paid.

## THE SULLIVAN LAW.

The following communication was sent to all county, city and town clerks:

"Minors under the age of sixteen cannot obtain hunting licenses.

"In response to a request for an opinion as to the application of the Sullivan Law, chapter 195 of the Laws of 1911, which prohibits the carrying or use of dangerous weapons, to the issuing of hunting licenses under section 104 to persons under the age of sixteen years, the county clerks were advised that the Sullivan Law materially affects the issuing of hunting licenses to any person under the age of sixteen, as the Sullivan Law strictly prohibits the carrying or possession of any gun, revolver, pistol or other firearm or any airgun, spring-gun or other instrument or weapon in which the propelling force is a spring or air or any instrument or weapon commonly known as a toy pistol or in or upon which any loaded or blank cartridges are used, or may be used, or any loaded or blank cartridges or ammunition, therefor, and for a violation of this law the person so apprehended and convicted shall be guilty of a misdemeanor.

" Inasmuch as there has never been any age limit fixed upon in regard to a person obtaining a hunting license from the clerks of the different communities of the State, the county, city and town clerks were permitted to use their discretion as to the issuance. The Sullivan Act now precludes the possibility of obtaining hunting licenses by persons under the age of sixteen."

## CARRYING OF DANGEROUS WEAPONS.

George V. S. Williams, counsel to the Conservation Commission, states that the amendment to the Penal Law, chapter 195 of the Laws of 1911, in relation to the sale and carrying of dangerous weapons, does not affect the carrying or having in possession shotguns or rifles of such size that they are incapable of being concealed on the person, unless the weapons are carried or possessed with intent to use the same unlawfully against another.

## STATE GAME FARM.

The State game farm located at Sherburne, N. Y., distributed throughout the State during the year 1911, 2,533 pheasants and 12,945 pheasant eggs. Arrangements have already been perfected to increase the brood birds to the number of 1,000. I am assured by the superintendent of the game farm that this will double the output for the year 1912. The buildings on the game farm have all been repaired and painted, a new team and harness purchased, and everything done to help increase the supply of birds and eggs for the coming year. Also, experiments are being carried on in relation to the raising of ruffed grouse for propagation purposes, and before long it is hoped that these finest of game birds may be sent out for stocking the covers of the State.

## NON-RESIDENT TAXPAYERS; HUNTING LICENSES.

The Non-resident Taxpayers' Law enacted at the last session of the Legislature is giving general satisfaction, and the county, city and town clerks have been instructed to only issue a nonresident taxpayer's hunting license to a person who is a bona fide taxpayer in the State of New York and a citizen of the United States, the department holding that an unnaturalized person or an alien, although paying taxes in the State, is not entitled to take out a nonresident taxpayer's hunting license.

## BLUE POINT OYSTER LAW.

In the early part of January it was brought to the attention of the department that some firms throughout the State were selling under the name of blue points oysters which were not blue points, which is a violation of the law. Acting on the information in the possession of the department, protectors were detailed to investigate the alleged violation, also to thoroughly look over all cold storage plants, hotels and restaurants to see that there were no violations of the woodcock, grouse and duck law, with a result that the protectors seized a total number of 567 birds, and secured thirty blue point oyster violations.

## BEAVER.

Reports from all quarters of the Adirondacks show that the beaver are continuing to increase in number, and in some instances are doing real damage to the timber on private camps. In one instance it was necessary for the department to place 140 rods of fine woven wire for the purpose of keeping the beaver from cutting poplar trees on private property. The department put up a 100-rod fine woven wire fence on the property of Dr. Nicoll's camp in the vicinity of Old Forge and forty rods on land owned by a Mr. DeCamp. This fence has proven a success, and prevents the beaver from cutting trees on the Nicolls and DeCamp land.

## OPEN SEASON.

The department has answered a great many hundred letters in relation to the law that was passed during the last session of the Legislature, which provides that "The open season is the time during which fish, fowl, birds or quadrupeds may be taken. If in accordance with the provisions of the Game Law the open season commences or ends on a Sunday, it shall be deemed to commence or end, as the case may be, on the Saturday immediately preceding each Sunday." This law has given general satisfaction to the sportsmen throughout the State.

## THE BANNER DIVISIONS.

The conditions in the Metropolitan and Long Island Division in relation to the protection of game have improved greatly during the year 1911, and I wish to make special mention of the efficient and energetic work carried on by this division. The department has received a great many complaints from the people of Long Island in relation to the shooting of ducks between sunset and sunrise. Protectors were ordered to the vicinity of Eaton's Neck to put a stop to this practice, and on Thanksgiving morning at Eaton's Neck, the protectors who had been given charge of the suppressing of the illegal killing of ducks between sunset and sunrise apprehended twenty men who were taken before Justice George C. Hendrickson of Huntington, Long Island. The men apprehended decided to stand trial, and retained lawyers to defend them. The first case was that of Charles Hendrickson (in no way related to Judge Hendrickson), who was tried on a charge of violation of section 170 of the Game Law, and found guilty by the justice, who suspended sentence. The other nineteen men plead guilty, and sentence was suspended in each case. After the twenty cases were disposed of, a second charge was brought against Charles Hendrickson for shooting without a license. He also plead guilty to this offense, and sentence was again suspended.

The department had gone to a great deal of trouble and expense to apprehend these men, on whom the justice suspended sentence, although they plead guilty. The department not being satisfied with the disposition of the cases, penalty actions were brought against those men by Mr. H. Leroy Austin, who was the commissioner at that time, but were dismissed by Hon. Thomas Mott Osborne, who succeeded Mr. Austin as commissioner.

I also wish to call attention to the splendid work done by the Central New York Division. Although there were but six protectors in this division there were successfully prosecuted 116 cases, which gives the division an average of nineteen cases per protector; a gross recovery of $2,749.95, with an average recovery per case of $23.76; a total cost of $224.20, with an an average cost per case of only $1.92. The average cost per case of $1.92 shows the efficiency of the protectors in handling their cases without a large cost to the State.

## CANNED GAME.

Another piece of good work which has had a far-reaching effect was the eliminating from the New York market of the sale of canned game. The department was able through the verdict given in the Andujar case before Judge Gerard of the Supreme Court to put a stop to dealers in New York selling game that had been canned and was being distributed throughout the entire State. The birds that were being used for canning purposes came from North Carolina and Virginia, and thousands of those canned were being sold and distributed in New York city. The Franco-American Company are no longer canning any game. Under the Bayne bill it would be impossible for them to sell any of those goods, but at the time the case was taken up the Bayne bill was not thought of.

Mr. Osborne who was Commissioner at that time, also, dismissed those canned goods cases, which were being prosecuted by the protectors of the Metropolitan and Long Island Division.

## THE TAGGING OF GAME.

The so-called Bayne Law prohibiting the sale of native game in New York has devolved upon the department many new and arduous duties. This law is one of the best game protective measures ever passed. Each species of imported game must have a tag indicating that the importation agents have tagged and passed upon the shipment, and found its contents not to belong to our native species. The tagging of shipments of game imported from without the United States into the State of New York has entailed new routine and additional work, and by the system adopted the department can now put its finger upon any shipment of game in the State of New York made at any given date.

The result of the enforcement of this law is that the pot hunter has lost his market. It has been supplied by foreign game, and the inducement to kill native game animals has greatly lessened. Dealers have also grown to look upon the sale of native wild game as being attended with too much useless risk; hence, the market hunter has been discouraged on every side. This of course means a tendency toward a better observation of the Game Law and the practical preservation of our game.

LLEWELLYN LEGGE,
*Chief Protector.*

## Licensed Nets Used and Fees Paid October 1, 1910, to September 30, 1911.

| | Fykes. | Scaps and drops. | Gills. | Seines. | Stakes. | Traps. | Row or sail boats. | Power boats under 10 tons gross burden. | Power boats from 10 to 15 tons gross burden. | Power boats from 20 to 25 tons gross burden. | Power boats from 25 to 30 tons gross burden. | Power boats from 30 to 35 tons gross burden. | Power boats from 35 to 40 tons gross burden. | Power boats over 40 tons gross burden. | Machine trap. | Fees. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Hudson river<br>Wappingers creek<br>Rondout creek | 861 | 396 | 275 | 123 | 34 | | | | | | | | | | | $3,926 32 |
| Lake Erie | 2 | | | | | | 14 | 38 | 1 | 10 | 1 | 2 | 2 | 7 | | 1,500 00 |
| Lake Ontario | | | | | | 4 | 18 | 46 | | | | | | | | 890 00 |
| Chaumont bay, etc | 176 | 2 | 62 | 4 | | 179 | | | | | | | | | | 175 00 |
| Cayuga lake | | | 13 | 4 | | | | | | | | | | | | 292 00 |
| Seneca lake | | 2 | 58 | | | | | | | | | | | | | 35 00 |
| Niagara river | | | | | | | | | | | | | | | 7 | 1,851 00 |
| Totals | 1,039 | 400 | 426 | 131 | 34 | 183 | 32 | 84 | 1 | 10 | 1 | 2 | 2 | 7 | 7 | $8,669 32 |
| Minnow net licenses, 538 | | | | | | | | | | | | | | | | 538 10 |
| Set line licenses, 261 | | | | | | | | | | | | | | | | 261 00 |
| Eel weir licenses, 20 | | | | | | | | | | | | | | | | 200 00 |
| Eel pot licenses, 38 | | | | | | | | | | | | | | | | 38 00 |
| Certificates to collect birds, their nests and eggs for scientific purposes, 29 | | | | | | | | | | | | | | | | 29 00 |
| Non-resident fishing licenses, 5 | | | | | | | | | | | | | | | | 25 00 |
| Grand total | | | | | | | | | | | | | | | | $9,760 42 |

| REGULAR PROTECTORS. | Actions brought. | Recovery. | Court costs. | Constable fees. | Attorney's fees. | Other charges. | Total costs. |
|---|---|---|---|---|---|---|---|
| Legge, L., Chief Protector | 3 | $46 55 | $1 55 | ...... | ...... | ...... | $1 55 |
| Leavitt, J. E., Second Assistant Chief | 1 | 25 75 | 75 | ...... | ...... | ...... | 75 |
| Nichols, R. B., Third Assistant Chief | 5 | 75 00 | 8 70 | $17 65 | ...... | ...... | 26 35 |
| Sauter, J. V., Fifth Assistant Chief | 16 | 1,355 00 | 37 95 | ...... | $132 00 | ...... | 169 95 |
| Featherstone, I. E., Division Chief | 11 | 317 85 | 9 10 | ...... | 5 00 | ...... | 14 10 |
| Farley, Wm. C., Division Chief | 17 | 505 80 | 19 02 | 9 83 | 30 00 | ...... | 58 85 |
| Weston, Wm. H., Division Chief | 13 | 375 30 | 25 30 | ...... | 5 00 | ...... | 30 30 |
| Kidd, Willett, Acting Division Chief | 7 | 97 50 | 10 80 | 4 45 | ...... | ...... | 15 25 |
| Algate, H. W | 5 | 57 00 | 10 55 | 4 85 | 11 00 | ...... | 26 40 |
| Allen, T. H | 11 | 120 95 | 12 45 | 1 50 | ...... | ...... | 13 95 |
| Bachman, R. A | 2 | 22 50 | 2 50 | ...... | ...... | ...... | 2 50 |
| Ball, J. E | 4 | 47 00 | 6 65 | ...... | ...... | ...... | 6 65 |
| Beebe, Carl A | 19 | 198 50 | 28 25 | 15 90 | 20 00 | ...... | 64 15 |
| Bellinger, F. H | 2 | 52 00 | 2 00 | ...... | ...... | ...... | 2 00 |
| Bennett, C. A | 18 | 231 85 | 52 65 | 15 15 | 47 25 | ...... | 115 05 |
| Birch, E. J | 8 | 114 10 | 14 80 | 9 15 | 28 00 | $2 12 | 52 07 |
| Bower, S. E | 3 | 72 55 | 2 55 | ...... | ...... | ...... | 2 55 |
| Boyd, Sterling | 1 | 15 50 | 50 | ...... | ...... | ...... | 50 |
| Broderick, J. W | 7 | 176 85 | 12 75 | 4 00 | ...... | ...... | 16 75 |
| Burnett, W. H | 13 | 377 00 | 7 00 | ...... | ...... | ...... | 7 00 |
| Burnside, L. H | 10 | 153 50 | 7 00 | 1 50 | ...... | ...... | 8 50 |
| Callahan, M. J | 1 | 15 50 | 50 | ...... | ...... | ...... | 50 |
| Cameron, B. A | 35 | 1,050 03 | 68 35 | 9 50 | 10 00 | ...... | 87 85 |
| Cater, Z. T | 8 | 118 20 | 18 65 | 11 72 | 15 00 | ...... | 45 37 |
| Claflin, J. A | 3 | 101 00 | 1 00 | ...... | ...... | ...... | 1 00 |
| Cloyes, W. D | 20 | 226 75 | 10 75 | ...... | ...... | ...... | 10 75 |
| Colloton, J. A | 24 | 1,416 12 | 13 50 | ...... | ...... | 19 56 | 33 06 |
| Conkling, A. J | 1 | 11 00 | 1 00 | ...... | ...... | ...... | 1 00 |
| Cruickshank, H. B | 24 | 437 80 | 93 05 | 32 25 | 5 00 | ...... | 130 30 |
| Culver, Chester C | 23 | 323 40 | 19 15 | 5 65 | ...... | ...... | 24 80 |
| Curtis, J. T | 4 | 137 00 | 3 95 | 4 50 | ...... | ...... | 8 45 |
| Daugherty, C. J | 3 | 69 50 | 4 50 | ...... | ...... | ...... | 4 50 |
| Davis, A. E | 10 | 113 55 | 12 90 | 9 50 | ...... | ...... | 22 40 |
| De Silva, J | 7 | 125 85 | 6 50 | 9 80 | ...... | ...... | 16 30 |
| De Wolf, H. C | 9 | 203 45 | 18 65 | 2 95 | 22 80 | ...... | 44 40 |
| Dorlon, E. A | 3 | 105 00 | 7 90 | 5 75 | ...... | ...... | 13 65 |
| Doty, W. J | 3 | 60 05 | 5 05 | ...... | ...... | ...... | 5 05 |
| DoVille, C. T | 18 | 478 95 | 24 75 | 1 00 | 5 00 | ...... | 30 75 |
| Farnham, P. S | 27 | 460 20 | 40 16 | 14 11 | 15 00 | ...... | 69 27 |
| Ferguson, A | 12 | 125 00 | 2 50 | 1 85 | ...... | ...... | 4 35 |
| Ferree, W. D | 7 | 279 85 | 4 85 | ...... | ...... | ...... | 4 85 |
| Ford, J. S | 4 | 239 00 | 4 00 | ...... | 10 00 | ...... | 14 00 |
| Gallagher, E | 17 | 835 95 | 5 95 | ...... | 70 00 | ...... | 75 95 |
| Geenan, E | 6 | 962 72 | 29 97 | ...... | 130 00 | ...... | 159 97 |
| Gleason, E. C | 6 | 104 00 | 4 00 | ...... | ...... | ...... | 4 00 |
| Grant, R. H | 17 | 784 80 | 9 30 | 6 75 | ...... | ...... | 16 05 |
| Haff, Harry P | 12 | 170 15 | 25 00 | ...... | 5 00 | ...... | 30 00 |
| Hamilton, F. W | 28 | 545 60 | 50 10 | 5 60 | 5 00 | ...... | 60 70 |
| Hand, Jay | 16 | 573 00 | 22 35 | 2 25 | 8 00 | ...... | 32 60 |
| Hazelton, Miles | 35 | 557 20 | 41 55 | 7 40 | 27 00 | ...... | 75 95 |
| Hasen, E. A | 6 | 95 50 | 5 50 | ...... | ...... | ...... | 5 50 |
| Hicks, E | 13 | 1,017 00 | 2 00 | ...... | 77 50 | ...... | 79 50 |
| Hincher, T | 10 | 160 15 | 28 10 | 29 50 | 41 05 | ...... | 98 65 |
| Hodge, W. C | 22 | 333 85 | 29 35 | 4 50 | 5 00 | ...... | 38 85 |
| Hoffman, F | 6 | 1,910 94 | 57 94 | 3 00 | 115 00 | ...... | 175 94 |
| Horton, H. A | 11 | 334 05 | 14 05 | ...... | 10 00 | ...... | 24 05 |
| Irons, W. H | 10 | 240 35 | 18 05 | 1 75 | ...... | ...... | 19 80 |
| Jenkins, J | 1 | 10 50 | 50 | ...... | ...... | ...... | 50 |
| Jones, E. R | 11 | 186 75 | 21 25 | 7 35 | 17 68 | ...... | 46 28 |
| Kane, J. H | 8 | 242 10 | 11 60 | 9 00 | 40 00 | ...... | 60 60 |
| Kinsman, E | 2 | 10 50 | 3 40 | 12 35 | ...... | ...... | 15 75 |
| Kirby, C. J | 9 | 148 00 | 4 00 | ...... | 25 00 | ...... | 29 00 |
| Knobloch, P | 8 | 363 94 | 16 74 | 8 90 | 8 00 | ...... | 33 64 |
| Leavitt, W. J | 3 | 45 00 | 1 45 | ...... | ...... | ...... | 1 45 |
| Lee, C. E | 32 | 303 62 | 49 20 | 37 42 | 105 00 | 5 00 | 196 62 |
| Leland, M. B | 7 | 69 00 | 15 90 | 2 00 | 32 00 | ...... | 49 90 |
| Marsh, T. E | 7 | 87 75 | 7 40 | 2 95 | 16 75 | ...... | 27 10 |

| REGULAR PROTECTORS. | Actions brought. | Recovery. | Court costs. | Constable fees. | Attorney's fees. | Other charges. | Total costs. |
|---|---|---|---|---|---|---|---|
| Mattison, S. S. | 7 | $178 00 | $9 25 | $17 95 | $10 00 | | $37 20 |
| Moore, Alexander | 6 | 183 55 | 3 50 | | | | 3 50 |
| Moxley, D. | 3 | 63 75 | 3 75 | | | | 3 75 |
| Mullin, F. C. | 14 | 200 10 | 10 10 | | | | 10 10 |
| McCormick, J. T. | 19 | 494 90 | 4 30 | | 10 00 | | 14 30 |
| Newell, W. F. | 7 | 170 95 | 8 55 | 5 40 | | | 13 95 |
| Nobles, G. R. | 2 | 20 00 | | | | | |
| Norton, D. | 1 | 26 00 | 1 00 | | | | 1 00 |
| Northrup, J. | 11 | 160 00 | 15 00 | | | | 15 00 |
| North, J. H. | 6 | 112 00 | 2 00 | | 32 00 | | 34 |
| Overton, E. R. | 16 | 383 90 | 19 90 | 1 00 | 32 00 | | 52 90 |
| Perkins, A. | 1 | 20 00 | 2 00 | 1 00 | | | 3 00 |
| Philbrick, B. W. | 16 | 147 00 | 26 55 | 9 75 | 22 26 | $3 10 | 61 66 |
| Reed, W. L. | 21 | 419 15 | 37 05 | 6 60 | | 3 04 | 46 69 |
| Reynolds, E. H. | 5 | 60 55 | 11 65 | 27 25 | | | 38 90 |
| Rice, J. G. | 5 | 71 00 | 19 35 | 9 45 | 10 00 | | 38 80 |
| Riley, C. | 11 | 186 00 | 11 35 | 7 85 | 15 00 | | 34 20 |
| Scott, N. A. | 15 | 243 00 | 32 25 | 13 65 | 10 00 | | 55 90 |
| Scott, S. S. | 2 | 32 20 | 3 75 | 3 45 | | | 7 20 |
| Seckington, D. | 13 | 182 50 | 40 35 | 13 30 | 20 00 | | 73 65 |
| Smith, E. G. | 30 | 818 95 | 59 45 | 6 55 | 52 50 | | 118 50 |
| Smith, J. R. | 2 | 60 25 | 25 | | | | 25 |
| Smith, J. T. | 2 | 36 00 | 6 00 | | | | 6 00 |
| Somerville, Robert | 6 | 82 50 | 18 55 | 26 25 | 20 00 | | 64 80 |
| Speenburgh, D. C. | 22 | 808 00 | 3 00 | | 25 00 | | 28 00 |
| Squires, C. A. | 1 | 12 00 | 2 00 | | | | 2 00 |
| Stanyon, F. | 6 | 133 20 | 11 75 | | | | 11 75 |
| Stapley, C. R. | 38 | 515 80 | 35 05 | | | | 35 05 |
| Sutton, G. E. | 10 | 275 00 | 9 50 | | 25 00 | 5 00 | 39 50 |
| Sweet, O. W. | 12 | 184 35 | 22 75 | 6 20 | 15 00 | | 43 95 |
| Tarbox, Ned | 10 | 139 40 | 15 40 | 11 70 | | | 27 10 |
| Thomas, F. G. | 13 | 127 10 | 10 10 | | | | 10 10 |
| Thompson, H. H. | 4 | 146 05 | 26 35 | 24 75 | 10 00 | | 61 10 |
| Travis, G. H. | 15 | 256 40 | 21 65 | 4 05 | 5 00 | 2 00 | 32 70 |
| Vann, J. B. | 10 | 601 25 | 17 00 | 6 00 | 30 00 | | 53 00 |
| Vosburgh, I. | 5 | 97 70 | 7 20 | 1 40 | | | 8 60 |
| Warren, R. E. | 24 | 307 90 | 25 00 | 23 45 | | | 48 45 |
| Weed, W. J. | 7 | 112 50 | 7 50 | | | | 7 50 |
| Westcott, M. | 2 | 26 15 | 1 15 | | | | 1 15 |
| Whitcomb, A. | 1 | | 75 | | | | 75 |
| Williams, A. P. | 19 | 325 57 | 32 30 | 28 20 | 23 50 | | 84 00 |
| Willis, John | 24 | 591 05 | 41 40 | 6 05 | 12 50 | | 59 95 |
| Winch, Casseus | 1 | 21 50 | 1 50 | | | | 1 50 |
| Winslow, A. | 2 | 121 00 | 1 00 | | | | 1 00 |
| Woolf, O. C. | 28 | 480 50 | 24 20 | | | | 24 20 |
| Worden, C. G. | 27 | 675 60 | 34 55 | | | | 34 55 |
| Total | 1,227 | $30,937 94 | $1,806,13 | $594 53 | $1,478 79 | $37 82 | $3,917 27 |

| SPECIAL GAME PROTECTORS AND OTHERS. | Actions brought. | Recovery. | Court costs. | Con-stable fees. | Attorney's fees. | Other charges. | Total costs. |
|---|---|---|---|---|---|---|---|
| Ames, S. ............... | 4 | $44 20 | $4 20 | ........ | $7 00 | ........ | $11 20 |
| Anglers' Association of Onondaga........... | 1 | 250 00 | ........ | ........ | 54 19 | $26 00 | 80 19 |
| Andrews, Fred.......... | 1 | 10 00 | 2 00 | ........ | ........ | ........ | 2 00 |
| Anson, B. J............ | 16 | 390 10 | 16 10 | ........ | ........ | ........ | 16 10 |
| Ashton, H. Y........... | 4 | 82 90 | 7 15 | ........ | ........ | ........ | 7 15 |
| Bardo, Lewis........... | 4 | 55 80 | 5 80 | ........ | ........ | ........ | 5 80 |
| Beakle, J. E........... | 1 | 20 50 | 50 | ........ | ........ | ........ | 50 |
| Behnke, J. H........... | 3 | 70 00 | 22 10 | ........ | ........ | ........ | 22 10 |
| Blanchard, A. J........ | 1 | 11 00 | 1 00 | ........ | ........ | ........ | 1 00 |
| Bell, R................ | 4 | 25 00 | ........ | ........ | ........ | ........ | ........ |
| Boyden, Geo. E......... | 2 | ........ | 8 15 | ........ | ........ | ........ | 8 15 |
| Bradley, F............. | 3 | 55 00 | 10 80 | ........ | ........ | ........ | 10 80 |
| Brier, Geo............. | 4 | 54 00 | 4 00 | ........ | ........ | ........ | 4 00 |
| Brigham, C. E.......... | 1 | 160 00 | ........ | ........ | ........ | ........ | ........ |
| Brundage, C. C......... | 1 | 25 00 | ........ | ........ | ........ | ........ | ........ |
| Bryant, D. C........... | 1 | 15 00 | ........ | ........ | ........ | ........ | ........ |
| Bullard, J............. | 6 | 84 95 | 9 50 | $3 00 | ........ | ........ | 12 50 |
| Bundenthal, Wm. H...... | 10 | 199 25 | 14 25 | ........ | ........ | ........ | 14 25 |
| Cadalso, C. E.......... | 1 | 100 00 | ........ | ........ | ........ | ........ | ........ |
| Clark, A............... | 2 | 56 50 | 1 50 | ........ | ........ | ........ | 1 50 |
| Con, H................. | 1 | 10 00 | ........ | ........ | ........ | ........ | ........ |
| Coy, F. H.............. | 1 | 15 00 | ........ | ........ | ........ | ........ | ........ |
| Dickinson, J........... | 2 | 21 50 | 1 50 | ........ | ........ | ........ | 1 50 |
| Dillenbeck, G. W....... | 8 | 120 50 | 3 50 | ........ | ........ | ........ | 3 50 |
| Eells, Arden........... | 2 | 25 85 | 7 25 | 4 85 | 23 30 | ........ | 35 40 |
| Farmer, H. M........... | 5 | 55 00 | 5 00 | ........ | ........ | ........ | 5 00 |
| Floyd, W. R............ | 4 | 16 00 | 8 10 | 2 20 | ........ | ........ | 10 30 |
| Gage, A. M............. | 3 | 55 00 | 7 35 | 4 35 | ........ | 4 00 | 15 70 |
| Garritson, E. E........ | 3 | 25 00 | 3 00 | 2 00 | ........ | ........ | 5 00 |
| Gauding, E. W.......... | 3 | 47 00 | 5 00 | ........ | ........ | ........ | 5 00 |
| Gill, G................ | 6 | 70 00 | ........ | ........ | 30 00 | ........ | 30 00 |
| Gould, C. G............ | 1 | 25 00 | 2 85 | ........ | ........ | ........ | 2 85 |
| Graham, J. G........... | 4 | 40 00 | ........ | ........ | ........ | ........ | ........ |
| Harrigan, P............ | 1 | 25 00 | ........ | ........ | ........ | ........ | ........ |
| Hildreth, Warren....... | 2 | 27 25 | 2 25 | ........ | ........ | ........ | 2 25 |
| Hoagland, W. A......... | 5 | 110 80 | 3 25 | 1 20 | ........ | ........ | 4 45 |
| Houghtaling, F. B...... | 5 | 41 50 | 6 25 | 1 05 | ........ | ........ | 7 30 |
| Johnson, F. E.......... | 1 | 15 60 | 60 | ........ | ........ | ........ | 60 |
| Kirchner, W. B......... | 2 | 25 00 | 5 95 | ........ | ........ | ........ | 5 95 |
| Kleisworth, J.......... | 3 | 75 00 | 8 70 | 1 65 | ........ | ........ | 10 35 |
| Knapp, E. J............ | 1 | 50 00 | 3 05 | 4 25 | ........ | ........ | 7 30 |
| Lawrence, I............ | 1 | 5 00 | ........ | ........ | ........ | ........ | ........ |
| Lodge, C. H............ | 4 | 66 00 | 3 00 | 3 00 | ........ | ........ | 6 00 |
| McCormick, Jas......... | 2 | 20 00 | 5 80 | 6 00 | ........ | ........ | 11 80 |
| McGinlay, C............ | 1 | 26 00 | 1 00 | ........ | ........ | ........ | 1 00 |
| McLoughlin, J. F....... | 1 | 35 00 | ........ | ........ | ........ | ........ | ........ |
| Maloy, Patrick......... | 1 | 25 00 | ........ | ........ | ........ | ........ | ........ |
| Maloney, F. J.......... | 6 | 41 75 | 2 75 | ........ | ........ | ........ | 2 75 |
| Mandigo, A. W.......... | 5 | 80 00 | ........ | ........ | ........ | ........ | ........ |
| Minnerly, W............ | 1 | 5 00 | ........ | ........ | ........ | ........ | ........ |
| Moak, J. E............. | 1 | 18 35 | 3 35 | ........ | ........ | ........ | 3 35 |
| Moriarity, J........... | 3 | 48 00 | 3 00 | ........ | ........ | ........ | 3 00 |
| Moore, R. L............ | 2 | 26 00 | 6 00 | ........ | ........ | ........ | 6 00 |
| Morse, Jr., W. J....... | 25 | 1,425 00 | 27 15 | ........ | 132 00 | ........ | 159 15 |
| Morse, E. L............ | 1 | 26 00 | 1 00 | ........ | ........ | ........ | 1 00 |
| Petrie, F. B........... | 2 | 35 00 | ........ | ........ | 10 | ........ | 10 00 |
| Perry, John L.......... | 4 | 101 50 | 6 50 | ........ | ........ | ........ | 6 50 |
| Poole, R. B............ | 1 | 25 00 | 3 10 | ........ | ........ | ........ | 3 10 |
| Prince, J. P........... | 1 | 20 00 | ........ | ........ | ........ | ........ | ........ |
| Rafferty, C. H......... | 1 | 16 90 | 2 90 | ........ | 2 00 | ........ | 4 90 |
| Robinson, W. C......... | 2 | 47 15 | 7 40 | ........ | ........ | ........ | 7 40 |
| Rose, J. J............. | 1 | 25 00 | ........ | ........ | ........ | ........ | ........ |
| Salisbury, J. E........ | 1 | 10 00 | 3 25 | 3 80 | ........ | ........ | 7 05 |
| Schmidt, F. T.......... | 6 | 259 50 | 8 40 | 4 50 | ........ | 10 | 13 00 |
| Schmitt, W............. | 2 | 48 00 | 8 00 | ........ | ........ | ........ | 8 00 |
| Smith, G. W............ | 1 | 20 50 | 50 | ........ | ........ | ........ | 50 |
| Spahn, L. J............ | 1 | 12 00 | ........ | ........ | ........ | ........ | ........ |
| Squires, S............. | 1 | ........ | ........ | 2 90 | ........ | ........ | 2 90 |
| Standish, D............ | 2 | 26 20 | 1 20 | ........ | ........ | ........ | 1 20 |
| Stark, J. F............ | 4 | 71 00 | 13 80 | 13 75 | 21 94 | ........ | 49 49 |
| Stubbs, F. J........... | 6 | 100 00 | 20 35 | 7 00 | ........ | ........ | 27 35 |
| Tanner, A. M........... | 1 | 27 30 | 2 30 | ........ | ........ | ........ | 2 30 |

| SPECIAL GAME PROTECTORS AND OTHERS. | Actions brought. | Recovery. | Court costs. | Constable fees. | Attorney's fees. | Other charges. | Total costs. |
|---|---|---|---|---|---|---|---|
| Temple, A. S. | 10 | $122 00 | $15 50 | $24 65 | $17 00 | ........ | $57 15 |
| Titus, S. | 2 | 20 00 | 1 12 | ........ | ........ | ........ | 1 12 |
| Titus, W. C. | 1 | 40 00 | ........ | ........ | ........ | ........ | ........ |
| Todd, S. | 1 | 30 50 | 50 | ........ | ........ | ........ | 50 |
| Viele, F. P. | 4 | 114 50 | 23 25 | ........ | ........ | ........ | 23 25 |
| Warren, F. D. | 1 | 400 00 | 3 22 | 2 90 | ........ | ........ | 6 12 |
| Washburn, V. E. | 1 | 25 00 | 4 45 | 2 15 | ........ | ........ | 6 60 |
| Watters, E. R. | 2 | 20 00 | 4 90 | ........ | ........ | ........ | 4 90 |
| Wood, L. S. | 8 | 134 55 | 12 55 | 12 00 | ........ | ........ | 24 55 |
| Wilder, J. M. | 4 | 59 00 | 4 00 | ........ | ........ | ........ | 4 00 |
| Weichbrodt, F. A. | 1 | 22 90 | 2 90 | ........ | ........ | ........ | 2 90 |
| Total | 259 | $6,235 80 | $383 79 | $107 20 | $297 43 | $30 10 | $818 52 |

|  | SUMMARY OF RECOVERIES AND EXPENSES. |  |
|---|---|---|
|  | Fines and penalties | Expenses of prosecution |
| Regular protectors | $30,937 94 | $3,917 27 |
| Special protectors and others | 6,235 80 | 818 52 |
| Total | $37,173 74 | $4,735 79 |

## SECTIONS OF THE FOREST, FISH AND GAME LAW VIOLATED DURING THE YEAR ENDING SEPTEMBER 30, 1911.

| COUNTY. | 22. | 23. | 31. | 32. | 33. | 47. | 74. | 76. | 77. | 78. | 79. | 81. | 82. | 84. | 85. | 86. | 87. | 88. | 89. | 91. | 92. | 93. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Albany |  |  |  |  |  |  |  | 1 |  |  |  |  | 1 |  |  |  |  |  |  |  |  |  |
| Allegany |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Broome |  |  |  |  |  |  |  | 1 |  |  |  |  |  | 2 |  |  |  |  |  |  |  |  |
| Cattaraugus |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |  | 1 | 1 |  |  |  |  |  |
| Cayuga |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |  |  |  |  |
| Chautauqua |  |  |  |  |  |  |  |  |  |  |  |  | 1 | 7 |  |  |  |  |  |  |  |  |
| Chemung |  |  |  |  |  |  |  |  |  |  |  |  |  | 3 |  |  |  |  |  |  |  |  |
| Chenango |  |  |  |  |  |  |  |  |  |  |  | 1 |  |  |  |  |  |  |  |  |  |  |
| Clinton |  |  |  |  |  |  |  | 4 |  |  | 4 |  |  | 1 |  |  |  |  |  |  |  | 1 |
| Columbia |  |  |  |  |  |  |  | 1 |  |  |  |  |  | 2 |  |  |  |  |  |  | 1 |  |
| Cortland |  |  |  |  |  |  |  |  |  |  |  |  |  | 2 |  |  |  |  |  |  |  |  |
| Delaware |  |  |  |  |  |  |  |  |  |  |  |  |  | 2 |  |  |  |  |  |  |  |  |
| Dutchess |  |  |  |  |  |  |  |  |  |  |  | 1 |  |  |  |  |  |  |  |  |  |  |
| Erie |  |  |  |  |  |  |  |  | 2 |  |  |  |  |  |  |  | 2 | 1 |  |  | 1 | 1 |
| Essex |  |  |  |  |  |  |  | 2 | 3 |  | 5 |  | 1 |  |  |  |  |  |  |  | 1 |  |
| Franklin |  |  |  |  |  |  |  | 5 | 3 |  | 4 |  |  |  |  |  |  |  |  |  |  |  |
| Fulton |  |  |  |  |  |  |  |  |  |  |  | 1 |  | 1 |  |  |  |  |  |  |  |  |
| Genesee |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Greene |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Hamilton |  |  |  |  |  |  |  |  |  |  | 4 |  |  | 1 |  |  |  |  |  |  |  |  |
| Herkimer |  |  |  |  |  |  |  | 5 | 5 |  |  |  |  | 2 |  |  |  |  |  |  |  |  |
| Jefferson |  |  |  |  |  |  |  |  |  |  |  |  |  | 5 |  |  | 1 |  |  |  | 1 |  |
| Kings |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 2 |  |  |  |  | 1 |
| Lewis |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |  |  |  |  |  |  |  |  |
| Livingston |  |  |  | 2 |  |  |  |  |  |  |  |  |  | 4 |  |  |  | 2 |  |  |  |  |
| Madison |  |  |  |  |  |  |  | 2 |  |  |  |  |  | 2 |  |  |  |  |  |  |  |  |
| Monroe |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 2 |  |  |  |  |  |
| Montgomery |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Nassau |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| New York |  |  |  |  | 1 | 1 |  |  |  | 1 | 1 | 1 |  |  |  |  | 18 |  | 3 |  | 2 | 8 |
| Niagara |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oneida | 1 |  |  |  |  |  |  |  |  |  | 2 |  |  | 6 |  |  |  |  |  |  |  |  |
| Onondaga |  |  |  |  |  |  |  |  |  |  |  | 1 | 1 | 3 |  |  | 1 |  |  |  |  |  |
| Ontario |  |  |  |  |  |  |  |  |  |  |  |  |  | 2 |  |  |  |  |  |  |  |  |
| Orange |  |  |  |  |  |  |  |  | 1 |  |  |  |  |  |  |  |  |  |  | 1 |  |  |
| Orleans |  |  |  |  |  |  |  |  |  |  |  |  |  | 2 |  |  |  |  |  |  |  |  |
| Oswego |  |  |  |  |  |  |  |  |  |  |  |  |  | 2 |  |  |  |  |  |  |  |  |
| Otsego |  |  |  |  |  |  |  |  |  |  |  |  |  | 3 |  |  | 1 |  |  |  |  |  |
| Putnam |  |  |  |  |  |  |  | 1 | 1 |  |  |  |  | 1 |  |  |  |  |  |  |  |  |

| | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Queens | | | | | | | | | | | | | | | | | | | 1 | 1 | | 1 |
| Rensselaer | | | | | | | | | | | | | | 2 | | | | | | | | |
| Richmond | | | | | | | | | | | | | | | | | | | | | 1 | |
| Rockland | | | | | | | | | | | | | 1 | | | | | | | | | |
| St. Lawrence | | | | | | | 1 | 3 | | 1 | 2 | | | 7 | | | | | | 1 | | |
| Saratoga | | | | | | | | 1 | 1 | | 1 | | 1 | | | | | | | | | 1 |
| Schenectady | | | | | | | | | | | | | | | | | | | | | | |
| Schoharie | | | | | | | | | | | | | | 1 | 1 | | | | | | | |
| Schuyler | | | | | | | | | | | | 1 | | 4 | | | | | | | | |
| Seneca | | | | | | | | | | | | | | | | | | | | | | |
| Steuben | | 1 | | | | | | | | | | | | 1 | | | | | | | | |
| Suffolk | | | | | | | | | | | | | | | | | | 3 | | | | |
| Sullivan | | | | | | | | | | | 2 | 2 | | 5 | | | | | | | | |
| Tioga | | | | | | | | | | | | | | 3 | | | | | | | | |
| Tompkins | | | | | | | | | | | | 1 | 1 | | | | | | | | | 1 |
| Ulster | | | | | | | | 2 | | | | | | | | | | | | 1 | | |
| Warren | | | | | | | | | 3 | | 2 | | | 1 | | | | | | | | 1 |
| Washington | | | | | | | | 1 | | | | 1 | | 11 | | | | | | 1 | | |
| Wayne | | | | | | | | | | | | | | 2 | | | | | | | | |
| Westchester | | | | 1 | | | | | 1 | | 1 | | | 1 | | | | | | | | |
| Wyoming | | | | | | | | | | | | | | | | | | | | | | |
| Yates | | | 1 | | | | | | | | | | 1 | | | | 3 | | | | | |
| Total | 1 | 1 | 1 | 3 | 1 | 1 | 1 | 29 | 20 | 1 | 28 | 10 | 8 | 93 | 1 | 1 | 31 | 7 | 4 | 5 | 7 | 15 |

## SECTIONS OF THE FOREST, FISH AND GAME LAW VIOLATED DURING THE YEAR ENDING SEPTEMBER 30, 1911 — (*Continued*).

| COUNTY. | 95. | 96. | 98. | 103. | 104. | 106. | 108. | 109. | 110. | 112. | 115. | 117. | 121. | 122. | 123. | 124. | 125. | 127. | 128. | 130. | 131. | 132 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Albany | ..... | ..... | ..... | ..... | 2 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 1 | ..... | ..... | ..... | ..... | ..... |
| Allegany | ..... | ..... | 3 | ..... | 4 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Broome | ..... | 3 | ..... | 1 | ..... | 1 | ..... | ..... | ..... | ..... | 1 | ..... | ..... | ..... | ..... | ..... | 4 | ..... | ..... | ..... | ..... | ..... |
| Cattaraugus | ..... | ..... | ..... | ..... | 3 | 1 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Cayuga | ..... | 1 | ..... | ..... | 6 | ..... | ..... | 3 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 2 | ..... | ..... | ..... | ..... | ..... |
| Chautauqua | ..... | 1 | ..... | ..... | 6 | ..... | ..... | ..... | ..... | ..... | 2 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Chemung | ..... | 4 | ..... | ..... | 3 | ..... | ..... | ..... | ..... | ..... | 3 | ..... | ..... | ..... | ..... | ..... | 4 | ..... | ..... | ..... | ..... | ..... |
| Chenango | ..... | ..... | ..... | ..... | 1 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 1 | ..... | 3 | ..... | ..... | ..... | ..... | ..... |
| Clinton | ..... | ..... | ..... | ..... | 3 | 2 | 1 | ..... | ..... | ..... | ..... | 4 | ..... | ..... | ..... | ..... | 6 | ..... | ..... | ..... | ..... | ..... |
| Columbia | ..... | 2 | 1 | ..... | 2 | ..... | 1 | ..... | ..... | ..... | 2 | ..... | ..... | ..... | ..... | ..... | 7 | ..... | ..... | ..... | ..... | ..... |
| Cortland | ..... | 2 | ..... | ..... | ..... | 1 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 2 | ..... | ..... | ..... | ..... | ..... |
| Delaware | ..... | ..... | ..... | ..... | 2 | 1 | 3 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 10 | ..... |
| Dutchess | ..... | ..... | ..... | ..... | 4 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 1 | 1 | ..... | ..... | ..... | ..... |
| Erie | ..... | 2 | 2 | ..... | 8 | ..... | ..... | ..... | ..... | ..... | 5 | ..... | ..... | ..... | ..... | ..... | 12 | ..... | ..... | ..... | ..... | ..... |
| Essex | ..... | ..... | ..... | ..... | 4 | 8 | ..... | ..... | ..... | ..... | 5 | ..... | ..... | 3 | ..... | ..... | ..... | ..... | ..... | 1 | ..... | ..... |
| Franklin | ..... | ..... | 1 | ..... | 4 | 22 | 2 | ..... | 2 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Fulton | ..... | ..... | ..... | ..... | ..... | 3 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 1 | ..... | ..... | ..... | 1 | ..... |
| Genesee | ..... | 1 | ..... | ..... | 2 | ..... | ..... | ..... | ..... | ..... | 1 | ..... | ..... | ..... | ..... | 2 | 3 | ..... | ..... | ..... | ..... | ..... |
| Greene | ..... | 1 | ..... | ..... | 3 | 3 | 1 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 2 | 1 | ..... | ..... | ..... |
| Hamilton | ..... | ..... | 3 | ..... | 5 | 1 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Herkimer | ..... | ..... | 8 | ..... | 6 | 13 | ..... | ..... | ..... | 2 | ..... | ..... | 4 | ..... | ..... | ..... | 1 | ..... | ..... | ..... | ..... | ..... |
| Jefferson | ..... | 2 | 1 | ..... | 6 | 2 | ..... | ..... | ..... | ..... | 3 | 1 | ..... | ..... | ..... | 1 | 8 | ..... | ..... | ..... | ..... | ..... |
| Kings | ..... | ..... | 3 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Lewis | ..... | ..... | ..... | ..... | ..... | 2 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Livingston | ..... | ..... | 2 | ..... | 10 | ..... | ..... | ..... | ..... | ..... | ..... | 3 | ..... | ..... | ..... | 1 | 9 | ..... | ..... | ..... | ..... | ..... |
| Madison | ..... | ..... | 2 | ..... | 4 | 1 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 3 | ..... | ..... | ..... | ..... | ..... |
| Monroe | ..... | 5 | 3 | ..... | 8 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 3 | ..... | ..... | ..... | ..... | ..... |
| Montgomery | ..... | ..... | ..... | ..... | 5 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Nassau | ..... | ..... | 6 | ..... | 13 | ..... | 1 | ..... | 1 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 1 | ..... | ..... | ..... | ..... | ..... |
| New York | 1 | 2 | 6 | 5 | 1 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Niagara | ..... | 2 | 2 | ..... | 6 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 1 | ..... | ..... | ..... | ..... | ..... |
| Oneida | 1 | 1 | 8 | 1 | 16 | 4 | 1 | ..... | ..... | ..... | 1 | ..... | ..... | 1 | ..... | ..... | 8 | ..... | ..... | ..... | ..... | ..... |
| Onondaga | 4 | 3 | 4 | ..... | 19 | 1 | ..... | ..... | ..... | ..... | 6 | ..... | ..... | 1 | ..... | 3 | 10 | ..... | ..... | ..... | 1 | ..... |
| Ontario | ..... | 13 | 1 | ..... | 3 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 3 | ..... | ..... | ..... | ..... | ..... |
| Orange | ..... | ..... | ..... | ..... | ..... | ..... | 1 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 6 | ..... | 1 | ..... | ..... | ..... |
| Orleans | ..... | ..... | 5 | ..... | 4 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 8 | ..... | ..... | ..... | ..... | ..... |
| Oswego | ..... | ..... | 2 | ..... | 12 | 2 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 2 | 1 | ..... | 6 | ..... | ..... | ..... | ..... | ..... |
| Otsego | ..... | ..... | 1 | ..... | 2 | ..... | ..... | ..... | ..... | ..... | 1 | ..... | ..... | 1 | ..... | ..... | 23 | ..... | ..... | ..... | ..... | ..... |
| Putnam | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |

| | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Queens | | | 5 | | 3 | | | | | | | | | | | | | | | | | |
| Rensselaer | | | 3 | | 3 | | | | | | 1 | | | | | | 3 | | | | | |
| Richmond | | | 1 | | 8 | | | | | | | | | | | | | | | | | |
| Rockland | | | 1 | | 2 | | | | | | 4 | | | | | | | | | | | |
| St. Lawrence | | 1 | | 1 | 14 | 2 | | | | | | 2 | | | | | 12 | | | | | |
| Saratoga | | | | | | 1 | | | | | 1 | | | | 1 | | 1 | | | | | |
| Schenectady | | | | | 1 | | | | | | | | | | | | | | | | | |
| Schoharie | | 1 | 1 | | 8 | | | | | | | | | | | | 16 | | | | | |
| Schuyler | | | | | 1 | | 1 | | | | | | | | | 2 | 5 | | | | | |
| Seneca | | 2 | | | | | | | | | 1 | | | | | | 3 | | | | | |
| Steuben | | 3 | 1 | | 4 | 1 | | | | | 3 | | | | 1 | | 10 | | | | | |
| Suffolk | | | 8 | 1 | 20 | | | | 2 | | | | | | | | | | | | | |
| Sullivan | | | 1 | | 2 | | | | | | | | | | 1 | | 1 | | | | 1 | |
| Tioga | | 1 | | | 4 | | | | | 1 | | | | | | | 1 | | | | | |
| Tompkins | | | | | 3 | | | | | | | 1 | | | | | | | | | 1 | 1 |
| Ulster | | | 1 | | 1 | | 1 | | | | | | | | | | 2 | 1 | | | | |
| Warren | | | | | 2 | | 2 | 1 | | | 2 | | | | | | 2 | | | | | |
| Washington | | | 1 | | 12 | 2 | | | | | 5 | | | 3 | | | 20 | | | | | |
| Wayne | | 7 | 1 | | 8 | | | | | | | | | | | | 7 | | | | | |
| Westchester | | | 2 | | 1 | | | | | | 1 | | | | | | 2 | | | | | |
| Wyoming | | | | | 3 | 2 | | | | | | | | | | | 1 | | | | | |
| Yates | | 2 | | | 3 | | | 3 | 3 | | 1 | | | 2 | | | 1 | | | | | |
| Total | 6 | 62 | 80 | 9 | 274 | 76 | 15 | 7 | 8 | 3 | 49 | 11 | 4 | 13 | 5 | 9 | 218 | 4 | 2 | 1 | 14 | 1 |

## SECTIONS OF THE FOREST, FISH AND GAME LAW VIOLATED DURING THE YEAR ENDING SEPTEMBER 30, 1911 — (*Concluded*).

| COUNTY. | 133. | 135. | 143. | 147. | 153. | 154. | 155. | 164. | 168. | 169. | 170. | 171. | 174. | 180. | 181. | 201*a*. | 203. | 205. | 206. | 225. | 240. | Total. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Albany | | | | | | | | | | | | | | | | | | | | | | 5 |
| Allegany | | | | | | | | | | | | | | | | | | | | | | 7 |
| Broome | | | | | | | | | | | | | | | | | | | | | | 13 |
| Cattaraugus | | | | | | | | | | | | | | | | | | | | | | 7 |
| Cayuga | | | | | | | | | | | | | | | | | | | | | | 13 |
| Chautauqua | | 1 | | | | | | | | | | | | | | | | | | | | 18 |
| Chemung | | | | | | | | | | | | | | | | | | | | | | 17 |
| Chenango | | | | | | | | | | | | | | | | | | | | | | 6 |
| Clinton | | | | | | | | | | | | | | | | | | | | | | 26 |
| Columbia | | 1 | | | | | | | | | | | | | | | | | | | | 20 |
| Cortland | | | | | | | | | | | | | | | | | | | | | | 7 |
| Delaware | | 1 | | | 1 | | | | | | | | | | | | | | | | | 20 |
| Dutchess | | | | | | | | | | | | | | | | | | | | | | 7 |
| Erie | | | | | | | | 2 | | | | | | | | | | | | | | 38 |
| Essex | | | | | | 1 | | | | | | | | | | | | | | | | 34 |
| Franklin | | | | | | | | | | | | | | | | | | | | | | 43 |
| Fulton | | | | | | | | | | | | | | | | | | | | | | 7 |
| Genesee | | 2 | | | | | | | | | | | | | | | | | | | | 11 |
| Greene | | | | | | | | | | | | | | | | | | | | | | 11 |
| Hamilton | | | | | | | | | | | | | | | | | | | | | | 14 |
| Herkimer | | | | | 2 | | | 1 | | | | | | | | | | | | | | 44 |
| Jefferson | | | 1 | | | | 1 | | | | | | | | | 1 | | | | | | 34 |
| Kings | | | | | | | | | | | | | | | | | | 8 | | | | 14 |
| Lewis | | | | | | | | | | | | | | | | | | | | | | 3 |
| Livingston | | | | | | | | | | | | | | | | | | | | | | 33 |
| Madison | | | | | | | | | | | | | | | | | | | | | | 14 |
| Monroe | | | | | | | | | | | | | | | | 1 | | | | | | 22 |
| Montgomery | | | | | 1 | | | | | | | | | | | | | | | | | 6 |
| Nassau | | | | | | | | | | 1 | | | 1 | | 7 | | | | | | | 31 |
| New York | | | | | | | | | | | | | | | | | | | | | | 50 |
| Niagara | | 2 | | | | | | | | | | | | | | | | | | | | 13 |
| Oneida | | | | | | | | | | | | | | | | | | | | | | 51 |
| Onondaga | | | | | 1 | | | | | | | | | | | | | | | | | 59 |
| Ontario | | | | | | | | | | | | | | | | | | | | | | 22 |
| Orange | | | | | | | | | | | | | | | | | | | | | | 10 |
| Orleans | | | | | | | | | | | | | | | | | | | | | | 14 |
| Oswego | | 1 | | | 8 | | | | | | | | | | | | | | | | | 36 |

| | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Otsego | | | | | | | | | | | | | | | | | | | | | 32 |
| Putnam | | | | | | | | | | | | | | | | | | | | | 3 |
| Queens | | | | | | | | | | | | | 1 | | | | | | | | 12 |
| Rensselaer | | | | | | | | | | | | | | | | | | | | | 12 |
| Richmond | | | | | | | | | | | | | | | | | | | | 1 | 6 |
| Rockland | | | | | | | | | | | | | | | | | | | | | 8 |
| St. Lawrence | | | | | | | | | | | | | | | | | | | | 2 | 49 |
| Saratoga | | 1 | | | | | | | | | | | | | | | | | | | 10 |
| Schenectady | | 1 | | | | | | | | | | | | | | | | | | | 2 |
| Schoharie | | 2 | | | | | | | | | | | | | | | | | | | 30 |
| Schuyler | | | | | 1 | | | | | | | | | | | | | | | | 15 |
| Seneca | | | | | | | | | | | | | | | | | | | | | 6 |
| Steuben | | | | | | | | | | | | | | | | | | | | | 25 |
| Suffolk | | | | | | | | | 1 | 5 | 25 | | | 8 | | | | | 3 | 1 | | 72 |
| Sullivan | | 1 | | | | | | | | | | | | | | | | | | | 16 |
| Tioga | | | | | | | | | | | | | | | | | | | | | 10 |
| Tompkins | | | | | | | | | | | | | | | | | | | | | 8 |
| Ulster | | | | | | | | | | | | | | | | | | | | | 9 |
| Warren | | | | | | 5 | | | | | | | | | | | | | | | | 21 |
| Washington | | 2 | | | | | | | | | | 1 | | | | | | | | | | 60 |
| Wayne | | | | | 1 | | | | | | | | | | | | | | | | | 28 |
| Westchester | | | | 3 | | | | | | | | | | | | | 1 | 1 | | | | 15 |
| Wyoming | 1 | | | | | | 1 | | | | | | | | | | | | | | | 8 |
| Yates | | | | | 1 | | | | | | | | | | | | | | | | | 21 |
| Total | 1 | 15 | 1 | 3 | 16 | 6 | 2 | 3 | 1 | 6 | 25 | 1 | 2 | 8 | 7 | 2 | 1 | 9 | 8 | 1 | 3 | 1,256 |

## RESULTS OF ACTIONS

| REGULAR PROTECTORS | Fined | Sentence suspended | Jail | Acquitted | J. Doe proceed | Discontinued | Jury disagreed | Total |
|---|---|---|---|---|---|---|---|---|
| Legge, L., chief protector | 3 | | | | | | | 3 |
| Leavitt, J. E., second assistant chief | 1 | | | | | | | 1 |
| Nichols, R. B., third assistant chief | 3 | | | 2 | | | | 5 |
| Sauter, J. V., fifth assistant chief | 4 | 11 | | 1 | | | | 16 |
| Featherstone, I. E., division chief | 10 | | 1 | | | | | 11 |
| Farley, William C., division chief | 15 | 1 | | | 1 | | | 17 |
| Weston, William H., division chief | 13 | | | | | | | 13 |
| Kidd, Willett, acting division chief | 6 | | | | 1 | | | 7 |
| Algate, H. W | 4 | | | 1 | | | | 5 |
| Allen, T. H | 11 | | | | | | | 11 |
| Bachman, R. A | 2 | | | | | | | 2 |
| Ball, J | 3 | | 1 | | | | | 4 |
| Beebe, Carl A | 12 | 3 | | 4 | | | | 19 |
| Bellinger, F. H | 2 | | | | | | | 2 |
| Bennett, C. A | 13 | | | 2 | 2 | 1 | | 18 |
| Birch, E. J | 7 | | | | | 1 | | 8 |
| Bowers, S. E | 3 | | | | | | | 3 |
| Boyd, Sterling | 1 | | | | | | | 1 |
| Broderick, J. W | 7 | | | | | | | 7 |
| Burnett, W. H | 11 | 2 | | | | | | 13 |
| Burnside, L. H | 10 | | | | | | | 10 |
| Callahan, M. J | 1 | | | | | | | 1 |
| Cameron, B. A | 33 | | | | | 2 | | 35 |
| Cater, Z. T | 6 | | | 2 | | | | 8 |
| Claflin, J. A | 1 | | 2 | | | | | 3 |
| Cloyes, W. D | 20 | | | | | | | 20 |
| Colloton, J. A | 22 | 1 | | | | 1 | | 24 |
| Conkling, A. J | 1 | | | | | | | 1 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Cruickshank, H. B | 19 | | | | 1 | 4 | | 24 |
| Culver, Chester C | 20 | 2 | | | 1 | | | 23 |
| Curtis, J. T | 4 | | | | | | | 4 |
| Daugherty, C. J | 3 | | | | | | | 3 |
| Davis, A. E | 6 | 3 | | 1 | | | | 10 |
| DeSilva, J | 7 | | | | | | | 7 |
| DeWolf, H. C | 8 | | | 1 | | | | 9 |
| Dorlon, E. A | 3 | | | | | | | 3 |
| Doty, W. J | 3 | | | | | | | 3 |
| DoVille, C. T | 16 | 1 | 1 | | | | | 18 |
| Farnham, F. S | 22 | 1 | | | 4 | | | 27 |
| Ferguson, A | 9 | 2 | | 1 | | | | 12 |
| Ferree, W. D | 7 | | | | | | | 7 |
| Ford, J. S | 4 | | | | | | | 4 |
| Gallagher, E | 15 | | 1 | 1 | | | | 17 |
| Geenan, E | 6 | | | | | | | 6 |
| Gleason, E. C | 6 | | | | | | | 6 |
| Grant, R. H | 16 | | | | 1 | | | 17 |
| Haff, Harry P | 11 | 1 | | | | | | 12 |
| Hamilton, F. W | 26 | | | 1 | | | 1 | 28 |
| Hand, Jay | 15 | | | | 1 | | | 16 |
| Hazelton, Miles | 33 | | | 1 | | 1 | | 35 |
| Hazen, E. A | 6 | | | | | | | 6 |
| Hicks, E | 11 | | | 2 | | | | 13 |
| Hincher, T | 8 | | | | 1 | 1 | | 10 |
| Hodge, W. C | 18 | 4 | | | | | | 22 |
| Hoffman, F | 6 | | | | | | | 6 |
| Horton, H. A | 11 | | | | | | | 11 |
| Irons, W. H | 9 | | | | 1 | | | 10 |
| Jenkins, J | 1 | | | | | | | 1 |
| Jones, E. R | 9 | | 2 | | | | | 11 |
| Kane, J. H | 7 | | | 1 | | | | 8 |
| Kinsman, E | 1 | | 1 | | | | | 2 |
| Kirby, C. J | 8 | 1 | | | | | | 9 |
| Knobloch, P | 7 | | 1 | | | | | 8 |
| Leavitt, W. J | 2 | | | | 1 | | | 3 |
| Lee, C. E | 19 | 12 | | 1 | | | | 32 |

## RESULTS OF ACTIONS—(*Continued*)

| REGULAR PROTECTORS | Fined | Sentence suspended | Jail | Acquitted | J. Doe proceed | Discontinued | Jury disagreed | Total |
|---|---|---|---|---|---|---|---|---|
| Leland, M. B. | 4 | 1 |  | 1 | 1 |  |  | 7 |
| Marsh, T. E. | 6 | 1 |  |  |  |  |  | 7 |
| Mattison, S. G. | 4 | 2 | 1 |  |  |  |  | 7 |
| Moore, Alexander | 6 |  |  |  |  |  |  | 6 |
| Moxley, D. | 3 |  |  |  |  |  |  | 3 |
| Mullin, F. C. | 14 |  |  |  |  |  |  | 14 |
| McCormick, J. T. | 17 |  | 1 | 1 |  |  |  | 19 |
| Newell, W. F. | 6 |  | 1 |  |  |  |  | 7 |
| Nobles, G. R. | 2 |  |  |  |  |  |  | 2 |
| Norton, D. | 1 |  |  |  |  |  |  | 1 |
| Northrup, J. | 11 |  |  |  |  |  |  | 11 |
| North, J. H. | 4 |  |  | 1 | 1 |  |  | 6 |
| Overton, E. R. | 16 |  |  |  |  |  |  | 16 |
| Perkins, A. | 1 |  |  |  |  |  |  | 1 |
| Philbrick, B. W. | 11 | 3 |  | 1 |  | 1 |  | 16 |
| Reed, W. L. | 19 | 1 | 1 |  |  |  |  | 21 |
| Reynolds, E. H. | 3 |  | 1 |  |  | 1 |  | 5 |
| Rice, J. G. | 3 |  |  | 1 | 1 |  |  | 5 |
| Riley, C. | 8 |  | 1 | 1 | 1 |  |  | 11 |
| Scott, N. A. | 12 |  |  | 1 | 2 |  |  | 15 |
| Scott, S. S. | 1 |  |  |  |  | 1 |  | 2 |
| Seckington, D. | 10 |  |  |  | 2 | 1 |  | 13 |
| Smith, E. G. | 28 |  |  | 1 |  | 1 |  | 30 |
| Smith, J. R. | 2 |  |  |  |  |  |  | 2 |
| Smith, J. T. | 2 |  |  |  |  |  |  | 2 |
| Somerville, Robert | 4 |  |  | 2 |  |  |  | 6 |
| Speenburgh, D. C. | 21 | 1 |  |  |  |  |  | 22 |
| Squires, C. A. | 1 |  |  |  |  |  |  | 1 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Stanyon, F. | 6 | | | | | | | 6 |
| Stapley, C. R. | 33 | 5 | | | | | | 38 |
| Sutton, G. E. | 10 | | | | | | | 10 |
| Sweet, O. W. | 12 | | | | | | | 12 |
| Tarbox, Ned | 8 | | 2 | | | | | 10 |
| Thomas, F. G. | 11 | 2 | | | | | | 13 |
| Thompson, H. H. | 3 | | 1 | | | | | 4 |
| Travis, G. H. | 14 | | 1 | | | | | 15 |
| Vann, J. B. | 8 | | 2 | | | | | 10 |
| Vosburgh, I. | 5 | | | | | | | 5 |
| Warren, R. E. | 22 | 2 | | | | | | 24 |
| Weed, W. J. | 7 | | | | | | | 7 |
| Westcott, M. | 2 | | | | | | | 2 |
| Whitcomb, A. | 1 | | | | | | | 1 |
| Williams, A. P. | 16 | | | 1 | 2 | | | 19 |
| Willis, John | 24 | | | | | | | 24 |
| Winch, Casseus | 1 | | | | | | | 1 |
| Winslow, A. | 2 | | | | | | | 2 |
| Woolf, O. C. | 26 | | | 1 | 1 | | | 28 |
| Worden, C. G. | 27 | | | | | | | 27 |
| Total | 1,065 | 63 | 22 | 34 | 26 | 16 | 1 | 1,227 |

## RESULTS OF ACTIONS — (*Continued*)

| SPECIAL PROTECTORS AND OTHERS | Fined | Sentence suspended | Jail | Acquitted | J. Doe proceed | Discontinued | Jury disagreed | Total |
|---|---|---|---|---|---|---|---|---|
| Ames, G. | 4 | | | | | | | 4 |
| Anglers Association of Onondaga | 1 | | | | | | | 1 |
| Andrews, Fred | 1 | | | | | | | 1 |
| Anson, B. J. | 15 | 1 | | | | | | 16 |
| Ashton, H. T. | 3 | | | | 1 | | | 4 |
| Bardo, Lewis | 4 | | | | | | | 4 |
| Beakle, J. E. | 1 | | | | | | | 1 |
| Behnke, J. H. | 3 | | | | | | | 3 |
| Blanchard, A. J. | 1 | | | | | | | 1 |
| Bell, R. | 3 | 1 | | | | | | 4 |
| Boyden, George E. | | 2 | | | | | | 2 |
| Bradley, F. | 3 | | | | | | | 3 |
| Brier, George | 4 | | | | | | | 4 |
| Brigham, C. E. | 1 | | | | | | | 1 |
| Brundage, C. C. | 1 | | | | | | | 1 |
| Bryant, D. C. | 1 | | | | | | | 1 |
| Bullard, J. | 6 | | | | | | | 6 |
| Bundenthal, Wm. H. | 10 | | | | | | | 10 |
| Cadalso, C. E. | 1 | | | | | | | 1 |
| Clark, A. | 2 | | | | | | | 2 |
| Con, H. | 1 | | | | | | | 1 |
| Coy, F. H. | 1 | | | | | | | 1 |
| Dickinson, J. | 2 | | | | | | | 2 |
| Dillenbeck, S. W. | 8 | | | | | | | 8 |
| Eells, Arden | 1 | | | 1 | | | | 2 |
| Farmer, H. M. | 5 | | | | | | | 5 |
| Floyd, W. R. | 1 | 2 | | 1 | | | | 4 |
| Gage, A. M. | 3 | | | | | | | 3 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Garritson, R. E. | 3 | | | | | | | 3 |
| Gauding, E. W | 3 | | | | | | | 3 |
| Gill, S. | 3 | | | 3 | | | | 6 |
| Gould, C. G. | 1 | | | | | | | 1 |
| Graham, J. G. | 4 | | | | | | | 4 |
| Harrigan, P. | 1 | | | | | | | 1 |
| Hildreth, Warren | 2 | | | | | | | 2 |
| Hoagland, W. A. | 3 | | | | | 1 | | 4 |
| Houghtaling, F. B. | 4 | | | | 1 | | | 5 |
| Johnson, F. E. | 1 | | | | | | | 1 |
| Kirchner, W. B. | 2 | | | | | | | 2 |
| Kleisworth, J. | 3 | | | | | | | 3 |
| Knapp, E. J. | 1 | | | | | | | 1 |
| Lawrence, I. | 1 | | | | | | | 1 |
| Lodge, C. H. | 4 | | | | | | | 4 |
| McCormick, James | 2 | | | | | | | 2 |
| McGinley, C. | 1 | | | | | | | 1 |
| McLaughlin, J. F | 1 | | | | | | | 1 |
| Maloy, Patrick | 1 | | | | | | | 1 |
| Maloney, F. J. | 4 | 2 | | | | | | 6 |
| Mandigo, A. W. | 5 | | | | | | | 5 |
| Minnerly, W | 1 | | | | | | | 1 |
| Moak, J. E. | 1 | | | | | | | 1 |
| Moriarity, J. | 3 | | | | | | | 3 |
| Moore, R. L. | 2 | | | | | | | 2 |
| Morse, W. J. Jr. | 23 | | | | | 2 | | 25 |
| Morse, E. L. | 1 | | | | | | | 1 |
| Petrie, F. B | 2 | | | | | | | 2 |
| Perry, John L. | 4 | | | | | | | 4 |
| Poole, R. B. | 1 | | | | | | | 1 |
| Prince, J. P. | 1 | | | | | | | 1 |
| Rafferty, C. H. | 1 | | | | | | | 1 |
| Robinson, W. C. | 2 | | | | | | | 2 |
| Rose, J. J. | 1 | | | | | | | 1 |
| Salisbury, J. E. | 1 | | | | | | | 1 |
| Schmidt, F. T. | 6 | | | | | | | 6 |
| Schmitt, W. | 2 | | | | | | | 2 |

## RESULTS OF ACTIONS — (*Concluded*)

| SPECIAL PROTECTORS AND OTHERS | Fined | Sentence suspended | Jail | Acquitted | J. Doe proceed | Discon- tinued | Jury disagreed | Total |
|---|---|---|---|---|---|---|---|---|
| Smith, G. W | 1 | ........ | ........ | ........ | ........ | ........ | ........ | 1 |
| Spahn, L. J | 1 | ........ | ........ | ........ | ........ | ........ | ........ | 1 |
| Squires, S | ........ | ........ | ........ | 1 | ........ | ........ | ........ | 1 |
| Standish, D | 2 | ........ | ........ | ........ | ........ | ........ | ........ | 2 |
| Stark, J. F | 3 | ........ | ........ | ........ | 1 | ........ | ........ | 4 |
| Stubbs, F. J | 5 | ........ | 1 | ........ | ........ | ........ | ........ | 6 |
| Tanner, A. M | 1 | ........ | ........ | ........ | ........ | ........ | ........ | 1 |
| Temple, A. S | 6 | ........ | ........ | ........ | 2 | 2 | ........ | 10 |
| Titus, S | 2 | ........ | ........ | ........ | ........ | ........ | ........ | 2 |
| Titus, W. C | 1 | ........ | ........ | ........ | ........ | ........ | ........ | 1 |
| Todd, S | 1 | ........ | ........ | ........ | ........ | ........ | ........ | 1 |
| Viele, F. P | 4 | ........ | ........ | ........ | ........ | ........ | ........ | 4 |
| Warner, F. D | 1 | ........ | ........ | ........ | ........ | ........ | ........ | 1 |
| Washburn, V. E | 1 | ........ | ........ | ........ | ........ | ........ | ........ | 1 |
| Watters, E. R | 2 | ........ | ........ | ........ | ........ | ........ | ........ | 2 |
| Wood, L. S | 8 | ........ | ........ | ........ | ........ | ........ | ........ | 8 |
| Wilder, J. M | 4 | ........ | ........ | ........ | ........ | ........ | ........ | 4 |
| Weichbrodt, F. A | 1 | ........ | ........ | ........ | ........ | ........ | ........ | 1 |
| Total | 233 | 8 | 1 | 7 | 4 | 5 | ........ | 258 |

## SUMMARY — TOTAL.

| | Fined | Sentence suspended | Jail | Acquitted | J. Doe proceed | Discon- tinued | Jury disagreed | Total |
|---|---|---|---|---|---|---|---|---|
| Regular | 1,075 | 63 | 22 | 34 | 26 | 16 | 1 | 1,227 |
| Special | 233 | 8 | 1 | 7 | 4 | 5 | ........ | 258 |
| Total | 1,298 | 71 | 23 | 41 | 30 | 21 | 1 | 1,485 |

# ANNUAL REPORT

OF THE

# BUREAU OF MARINE FISHERIES.

# ANNUAL REPORT, SUPERINTENDENT OF MARINE FISHERIES.

To Hon. Thomas H. Guy, *Deputy Conservation Commissioner:*

Sir.— Pursuant to the requirements of section 153 of the Conservation Law, I have the honor to present herewith a report covering the business of the Bureau of Marine Fisheries for the fiscal year closing September 30, 1911.

Hereto attached I beg to present the report of the engineer of the Bureau of Marine Fisheries, from which it will be seen that the triangulations made between Horton's Point and Orient Point and Plum Island, about thirteen miles in length, were carried forward, being a continuation of the coast survey between Port Jefferson and Horton's Point, in which district thirty-six signals were plotted and established.

Sixty-one surveys of individual lots or tracts covering 6,992.2 acres were made, of which 2,192.2 acres are original surveys for new leases and 4,700 acres are resurveys. Included in these were thirty-six relocation surveys covering 255.5 acres in Raritan bay, 4,436.5 acres in Long Island sound and eight acres in Jamaica bay.

Observation has shown that a number of signals need either repair or replacement, and this work should be authorized in the coming year.

## GROUNDS APPLIED FOR AND GRANTED.

During this fiscal year there were applied for and granted:

| | | |
|---|---|---|
| Raritan bay | 1,732.6 | acres. |
| East river | 50 | acres. |
| Long Island sound | 270 | acres. |
| Hempstead | 1 | acres. |
| East Chester bay | 6 | acres. |
| Total | 2,059.6 | |

as per Schedule "A," hereto attached.

There were further applied for sixty-four acres which were not granted, the grounds covered by the same having been declared natural oyster grounds; and there were forfeited to the State nineteen acres, as per schedule "B," hereto attached.

There have been applied for (the applications being on file in this Bureau) the following lands:

| | | |
|---|---|---|
| East Chester bay | 4.6 | acres. |
| Hudson river | 100 | acres. |
| Raritan bay | 860 | acres. |
| Long Island sound | 821 | acres. |
| Hempstead | 10 | acres. |
| Total | 1,795.6 | acres. |

as per Schedule "C," hereto attached.

## FRANCHISES SURRENDERED TO THE STATE.

As per Schedule "D," seventeen franchises, covering 123.7 acres, were surrendered to the State, covering:

| | | |
|---|---|---|
| Little Neck bay | 7.5 | acres. |
| Raritan bay | 45.4 | acres. |
| Long Island sound | 69.8 | acres. |
| Total | 123.7 | acres. |

## LEASES SURRENDERED TO THE STATE.

Twenty-five parcels of land held under lease from the State, covering:

| | | |
|---|---|---|
| Long Island sound | 311.5 | acres. |
| Jamaica bay | 53.8 | acres. |
| East Chester bay | 100.6 | acres. |
| Raritan bay | 3 | acres. |
| Total | 468.9 | acres. |

as per Schedule "E," hereto attached, were surrendered.

These lands, covered by franchises as well as leases, with few exceptions, have been found either unsuitable for the cultivation of shellfish, or their value has been destroyed by the excessive pollution of the waters.

There are now held under franchises granted by the State, as per Schedule "F," 15,991.6 acres, and under lease from the State, as per Schedule "G," 15,336.9 acres, a total of 31,328.5 acres.

## REVENUES DERIVED.

The revenues of this Bureau are, as heretofore, obtained

| | |
|---|---|
| From rentals | $13,166 63 |
| Taxes | 7,417 27 |
| Penalties | 464 67 |
| Interest | 7 15 |
| License fees | 2,080 00 |
| Forfeited deposits | 145 00 |
| Recording fees | 219 00 |
| Relocation surveys | 194 30 |
| Total | $23,694 02 |

as per Schedule "H," hereto attached.

The expenditures of the Bureau were as follows:

| | |
|---|---|
| Office expenses | $3,075 35 |
| Survey of shellfish lands | 161 00 |
| Shellfish Convention | 30 62 |
| Salaries | 15,929 20 |
| Expenses of employees | 3,498 69 |
| Total | $22,694 86 |

as per Schedule "I," hereto attached.

This would show a surplus revenue accruing to the State of $999.16.

The receipts of the Bureau have annually increased, and a very much larger revenue could readily be obtained without imposing upon the fishermen and oystermen of this State an excessive burden if our laws were made to conform with the advanced ideas now governing the marine fisheries of other States and countries.

Before the adoption of the law of 1908, the revenue for the preceding eight years from 1901 to 1908 inclusive, was as follows:

| | |
|---|---|
| 1901 | $1,812 40 |
| 1902 | 1,589 84 |
| 1903 | 1,574 94 |
| 1904 | 1,523 22 |
| 1905 | 2,496 79 |
| 1906 | 3,321 30 |
| 1907 | 4,836 18 |
| 1908 | 6,950 93 |

Under the law of 1908, the increase is shown as follows:

| | |
|---|---|
| 1909 | $17,500 37 |
| 1910 | 24,745 95 |
| 1911 | 23,694 02 |

The Bureau deals with a great economic proposition, one not only of production but primarily of careful and scientific propagation.

In no department of the Conservation Commission is there a better opportunity to show the results of not only conservation but progressive and scientific augmentation than in the marine fisheries of our State — and augmentation, the increase of the product of our marine fisheries, must be the goal aimed at if the true object of conservation as applied to fisheries is to be attained. This field has been but slightly touched. By the practical application of approved modern methods, the economic value of our marine fisheries can be quintupled, and in many instances increased tenfold in from five to ten years. The importance of the questions involved should be clearly discernible.

This is illustrated and confirmed by actual experience. Five years ago lobsters were a rarity in the waters of this State. Since artificial propagation has been introduced this species has rapidly increased so that our fisheries of this valuable crustacean are already producing gratifying results, and we can confidently expect that their output henceforth will steadily and repaidly increase. The State of Maine has benefited by the same experience, so that in six years the catch of lobsters has increased 100 per cent., the returns of 1910 being 9,360,000 pounds, and valued at $2,145,000.

In our own State the propagation of tom-cod has increased the catch fully 150 per cent. within the last five years, and the propagation of flat-fish and flounders has lowered the price from ten or twelve cents to two and three cents in the wholesale market.

That our marine fisheries furnish abundant and wholesome sport to a great army of hook and line fishermen and that our professional market fishermen furnish the hardiest mariners and the nucleus for our mercantile and national marine service ought not to be overlooked.

It is practically impossible to furnish an accurate statement as to the value of the product of these fisheries in our State, for the reason that those engaged in the shellfisheries have not been obliged by law to furnish accurate statistical information, while those engaged in the marine fisheries, i. e., the catching of marine fish and lobsters, are not required to and do not make any statement as to the value of these latter fisheries, and a request for such statistical information made to the fishermen brings forth either unreliable or misleading figures, or, generally, none.

While the catch of oysters, clams and scallops has shown a steady annual decrease, competent judges estimate its value last year at from $10,000,000 to $12,000,000. Such information as can be secured indicates that the value of the catch of our marine food fishes is at least as great as that of our shellfisheries. The delivery of 700,000 pounds of blue, weak, flat and butter-fish, bass and porgies, at Fulton market, this city, from September 10th to 15th (five days) is an indication of the volume of the business.

It must, of course, be admitted that conditions for the propagation of shellfish in our marine waters are not as favorable as they are in the waters of some States, especially those to the south of us and of Europe. The oyster beds of the Gulf and Atlantic coast south of Cape Hatteras are laved by the currents of the Gulf stream, and receive, therefore, not only abundant food material, but, what is of equal importance, waters of an even and favorable temperature. The Gulf stream, however, leaves our coast at Cape Hatteras and, crossing the Atlantic, strikes the western coast of Europe, Portugal, Spain, France and England, and there its benefits are again utilized for the cultivation of mollusks. Besides, the European oyster is an hermaphrodite, and the union of spawn and milt is therefore much more readily secured. On our own coasts, however, the Arctic current in its southward trend impinges upon our coast and channels, and in our own particular situation, the effect of this is enhanced by the fact that our oyster grounds, with few exceptions, are swept by the severe storms coming from the east and northeastward from the Atlantic ocean, and, therefore, are exposed to their full effect, each carrying with it a rapid fluctuation of the temperatures of the water. A change of but a few degrees in temperature will advance or retard the spawning of our mollusks for days and weeks. To increase the difficulty, the American oyster contains the male and the female in different shells, and the union of spawn and milt is, therefore, more problematical, and a set much more difficult to attain. We have, however, on our coast numerous locations which could be used for the securing of the young of this species, but these advantages so freely offered by nature have never been utilized.

Many of our progressive oyster-growers, recognizing the difficulties under which their industry is conducted, have brought shiploads of oysters from the South and transplanted them into some of the quieter waters of our State with the hope of thereby securing more stable conditions in the industry.

The law should require that all oyster grounds leased from the State should be marked by stakes or buoys, the size and kind of which should be prescribed, and all such stakes should have placed on them in large readable characters the number of the bed. If this were done, as it is in other States, the trespassing of one lessee upon the beds of the other could be prevented. It would also enable this Bureau to readily find the lands which have either been returned to or reclaimed by the State, and to remove therefrom the stakes placed on them by the planters. At present a number of grounds released and returned to the State are still being claimed and used by the ex-lessees.

All oystermen should be required, under penalty of forfeiture of license for failure, to make annual statistical returns.

For the protection of hard and soft shell clams and scallops, there is practically no legislation excepting that adopted by either boards of supervisors or town boards, and while the set this year has been an excellent one, the demand is such that the want of any restrictive legislation has already greatly decreased our annual catch, and, if continued, will destroy all the members of this species. Careful experiments made by the Bureaus of Marine Fisheries of other States and the Federal government have shown that, like other species, this mollusk can be propagated, and were the State to furnish proper facilities for this purpose, the catch of this succulent and valuable mollusk could within a very short time be largely increased. Legislation for the protection of these species is urgently needed.

There should be an inspection of oyster-shucking, packing and shipping houses, and sanitary conditions should be provided for by law.

As already stated, but a few years ago the lobster was practically extinct in our waters, and when the first efforts at propagation were made, following the lines laid down by the National Bureau of Fisheries, our culturists were ridiculed. Results, however, have shown that the attempts at propagation were more than justified. This year's hatch of 48,000,000 fry will largely contribute to the increase of this crustacean. This work was, however, done by our State Fish Culturist under the most disadvantageous conditions. A half dozen old shad-hatching boxes were rigged as hatching-boxes and placed in Fort Pond bay. The berry lobsters were obtained through the courtesy and kindness of the local fishermen there, and especially through that of Mr. E. H. Tuthill of Montauk, whose assistance in this work cannot be too highly commended, for it was often rendered at considerable loss to himself. The eggs were placed in these hatching-boxes — a quantity of them were shipped to the Cold Spring hatchery, thus furnishing a supply for the north shore of Long Island — and liberated on the spot as they hatched. Young lobsters are cannibals and, if left in large numbers in any given locality, will destroy each other, and when, further, these small crustaceans form the natural food of the dog-fish, as is shown by the fact that this fish is being caught in largely annual increased quantities in Fort Pond bay, the location of the hatcheries, it will be seen that a large part of this work is unproductive even though the actual results have been gratifying.

Careful experiments show that about 2 per cent. of the lobsters hatched at hatcheries reach maturity, while if the young fry is held in captivity until it has reached its fourth stage, the stage in which its shell hardens and it is able to take care of and protect itself from its natural enemies, fully 60 per cent. of the hatch will reach maturity and become of commercial value. Our laws on this valuable species are embraced in one paragraph, section 205 of the Forest, Fish and Game Law, which prohibits their taking at a less size than nine inches in length. Lobsters reach maturity, i. e., the reproductive age, when eight or nine inches long, and it will therefore be seen that under this law we are practically destroying our breeding stock.

The question as to increasing the size or length at which lobsters can be taken or of allowing the smaller lobsters to be caught, and prohibiting the taking of the larger sizes, is a mooted one in the different States, but the results achieved in the State of Maine and in the Canadian Atlantic maritime provinces, would indicate that the proper legislation would be to prohibit the taking of any lobster less than ten inches long, of regulating the distance between the slats in lobster-pots to a certain size, of prohibiting the catching of all berry lobsters, of establishing a close season, and of offering the fishermen a bounty upon all berry lobsters delivered at the hatcheries.

All lobster fishermen, the pots and the boats used by them should be licensed, the license numbers marked on boats and floats of lobster-pots, and required to make annual statistical statements under oath.

Net-fishing is prohibited in certain districts, and this covers about all the attention which has been given to this valuable industry.

Those engaged in the fisheries of this State on the Great Lakes and inland streams and on the Hudson river above Newburgh are all required to take out licenses for their nets and the boats used in the business, while under our present laws no fisherman of our marine waters, and no boat, excepting the vessels used in the catching of menhaden, and nonresident fishermen, are taxed.

The shad, one of our most valuable food fishes, had, five or six years ago, practically disappeared from our waters, but through artificial culture we are gradually obtaining an increased supply. An examination of the Hudson river this spring, however, showed astonishing conditions. The up-State Hudson river fishermen, whose boats and nets were paying a license to the State, were by law compelled to fish only with drift gill nets which means that they could fish two, or at the outside, three hours on each tide, while below Newburgh, where no fishermen paid a tax, the river was blocked with stake gill nets in which fish were caught twenty-four hours out of the day, and this fishing only ceased from Thursday, until Monday morning, as required by law, if the fishermen were not discovered with their nets down during that time. It is astonishing to note the number of fish that have been able to circumvent these hundreds of stake gill nets, placed in the lower reaches of the river, in an attempt to reach their spawning ground.

An examination of some of these stake gill nets shows that, while 100 shad were held in the nets by their gills, from 10 to 120 fish which had been caught and fatally injured were either released during their struggles or by the turn of the tide and were lying dead on the bottom of the river, showing that more fish were destroyed than were caught and delivered to our markets.

The placing of stake gill nets in any of our waters should be prohibited as injurious and destructive to the fisheries.

On the shores of Long Island numerous pound nets with their leaders, some of them over a mile long, dot the shores, and tons upon tons of fish are taken from these pounds, and either placed directly upon the market or in cold storage to he held for higher prices. Several parties have within the last few years established large pens, especially on the south shore of Long Island, to which the fish caught in the pounds are taken, held alive and fed until market conditions are such that they can be sold at a large profit. This class of fisheries should pay its fair proportion of the expenses of our hatcheries.

The schools of bluefish, sea bass, Spanish mackerel and mackerel in the waters of Long Island are this year greater and larger than have been observed in a decade, and our unlicensed and unrestricted fishermen are now drawing purse seines of very small mesh on the very shores of the island and taking tons of small fish ranging in size from two to seven inches and selling them for whatever they will bring in the market. The taking of immature fish will shortly destroy many valuable species, and decrease, in an increased ratio, the food output, as in two or three years each one of the fish thus caught would have reached a weight of from three to seven or eight pounds.

The catching of fish otherwise than by hook and line within three miles of low water mark on the Atlantic shores should be prohibited under heavy penalty.

The mesh of all pounds and cages, nets, seines, fikes and eelpots should be regulated by law, and all should be operated under a license, the license number to be attached to these various devices in manner prescribed by law.

All boats have a certain tonnage, whether fishing for pleasure or for the market, should be licensed and required to have plainly marked on the starboard and port bows the license number. The fishermen should be required to make annual statistical returns.

One of the menaces to our fisheries, both shell and others, and probably the greatest, is that of pollution, and such pollution can best be separated in two classes, the first being that committed by the cities, towns and villages — municipal pollution — the second by the manufacturing plants located adjacent to our public waters.

The first class of pollution is destructive to our fisheries in two ways. Sewage being composed of large quantities of organic matter, oils and fats, settles upon the lands under water, producing a deep, slimy mud, while the fats and oils chemically combining with the sodium in the salt form a leathery saponification which becomes, in time, almost insoluble and forms an impervious cover upon the bottom lands which asphyxiates everything on them at the time, and ruins the ground for the purposes of spawning of our marine species. It, furthermore, in the natural process of oxidation, absorbs large quantities of oxygen in the water, reducing the oxygen contents to such an extent that even major fish life cannot live in such polluted waters.

The result of this class of sewage pollution is plainly shown in the destruction of the formerly great oyster beds in the Harlem river, the Hudson river, upper and lower New York bay and the East river, while exhaustive tests of the waters of the East river and the Hudson river have shown that at low tide the absorption of the oxygen naturally contained in these waters is now so great that fish cannot live therein, and all of our valuable species which annually ascend the river to reach their spawning grounds cannot pass this city except at high tide, when the inflow of cleaner and clearer waters, not yet exhausted of their proper percentage of oxygen, enables them to pass this point of extreme pollution.

The commercial pollution is fully as serious; large factories, without so much as " by your leave," dump their so-called waste and refuse materials, composed largely of diluted soaps and fats, acids, alkalis and spent coloring matter into our streams, and so great has become this nuisance, still better called " outrage," that in many sections shellfish have been entirely exterminated, and fisheries which were of great value in years past are now absolutely barren.

When it is considered that in our sewage thousands upon thousands of tons of valuable fertilizing material, to replace which millions of dollars' worth of fertilizers are annually imported from foreign countries, is not only wasted by being promiscuously dumped into our waters, but is at the same time destroying a large and important source of food production and endangering the health and lives of our citizens, and when our large manufacturing concerns, in utter disregard of the rights of our citizens and the State, further pollute our waters with waste, many of which, if subjected to modern chemical methods, would produce valuable by-products, and which, no difference whether valuable or not, these commercial plants have no more right in law or equity to deposit upon the valuable properties of the State than upon the farms or grounds of their neighbors, it is astonishing that this question, of such enormous and vital importance, economic and hygienic, has never heretofore received proper attention, and that, in the legislation enacted this year, under paragraph 171 of chapter 647, it receives no more attention than the simple rehashing, verbatim, of section 207 of chapter 130 of the Laws of 1908.

In the year 1908 conditions were already deplorable, and large sections of valuable property had been destroyed, but this was just as little considered then as it is now.

The increase of this menace can be especially observed at the present time in sections of Long Island sound and Raritan and

Princes bays, where the covering of the lands under water by this slimy ooze, which in the course of its extension destroys all life and spawning grounds, is daily and yearly encroaching farther upon property which is now not only bringing a revenue to the State but is also breeding and rearing valuable food products.

It must be acknowledged that the question is a serious one. It means the expenditure of large sums of money by municipalities, if their waste products, so-called, are to be taken care of, as demanded, by modern science, but the solution of the question has already been reached and applied in other cities and States, and there is no valid reason why our municipalities should not be forced to take care of their own filth within a reasonable time.

Manufacturing waste and its disposal need not cause as much concern as the sewage question. Manufacturing waste should, under all economic conditions, be taken care of by the manufacturer whether he manufactures it into a useful by-product or not. That question must, in law and equity, be put up to the offender for solution.

If the fisheries of our marine district should be by law fairly and justly taxed and licensed, as suggested heretofore, an annual income of from $75,000 to $100,000, if not more, could be secured.

If the surplus income, following the example of other States and nations, could be applied by this Bureau and the State Fish Culturist, under direction of the Conservation Commission, a series of observation and experimental stations for the testing of the temperature, salinity and currents of our waters, the observation of the habits and spawning grounds of our different species and the establishment of further hatcheries and experimental stations could be secured, and a great progressive work could thereby be inaugurated, a work which in a few years would increase the catches many-fold, and be of incalculable value to the people not only of this but all of our neighboring States. The States of New Jersey, Virginia, Alabama, Mississippi and Louisiana have all undertaken this work with very gratifying results.

In view of our constantly increasing population and the rapidly rising cost of living, this course must be adopted if our State is to maintain her position abreast of her progressive sisters. It resolves itself into the solution of the question, not of "conservation" but of "augmentation," the only direction which it can and should take as one of the great economic problems of the age.

The number of fisheries protectors now authorized by law is insufficient if the work of the Bureau is to be properly and efficiently performed. There should be one protector for each of the following districts: Richmond county, Jamaica bay, Great South bay, Peconic bay, Gardiner's bay and the north shore of Long Island to Horton's Point, Horton's Point to Lloyd's Neck, Lloyd's Neck to Long Island City, and the Hudson river; making eight protectors for the marine district. In selecting the men for these positions, knowledge of the sea and its fauna and their scientific qualifications should be specially considered.

The salaries for the protectors should be $1,200 per annum for the first five years; $1,350 per annum for the next five years, and $1,500 thereafter.

These men often perform their duties at the risk of life and limb, and must, on many occasions, take chances such as are unknown and unappreciated in other vocations.

Other countries have found, after many years of experience, that the policy of granting a fair remuneration and a secure future makes it possible to obtain the services of a better class of men, and that their work is of superior quality and greater value to the State.

The opportunities are offered, as above outlined, for the beginning of a great constructive work of inestimable benefit to our State and people. But in order to secure success it must be laid out on a broad, comprehensive plan, and based on a settled policy, carried out progressively on modern scientific principles by educated and intelligent men.

New legislation, based upon the experience of our oystermen and fishermen, and corrected and refined by our scientists, will be needed to take the place of our present unscientific, uneconomic laws.

Dated, NEW YORK, *December* 1, 1911.

Respectfully submitted,

ROBT. A. WIDENMANN,

*Supt. of Marine Fisheries.*

# REPORT OF ENGINEER OF THE BUREAU OF MARINE FISHERIES.

New York, *November* 27, 1911.

*To* Mr. Robert A. Widenmann, *Superintendent of Marine Fisheries:*

Sir.— I have the honor to present the following report of my work surveying and mapping lands under water of the State of New York for shellfish culture, and preparing the necessary papers connected therewith, for the fiscal year ending October 1, 1911.

My principal work during the past year has been the plotting of field data of the triangulation system in Long Island sound based on and in continuation of the polyconil projections of the United States Coast Survey, and the survey of oyster lots and tracts of lots in Long Island sound, Raritan bay and resurveys of lots in Long Island sound, Raritan bay, Jamaica bay and East Chester bay.

During the fiscal year of 1910, I made the triangulation survey between Horton's Point and Orient Point, and Plum Island, about thirteen miles in length, and established and located thirty-six signals, three of which are tripods, and the remaining thirty-three natural objects, thus saving the expense of erecting tripods.

In the past fiscal year I have plotted on polyconic projections the thirteen miles of notes of the 1910 field work above described, between Horton's Point and Plum Gut, and many others between Horton's Point and Port Jefferson.

This survey is in continuation of the coast survey between Port Jefferson and Horton's Point. The thirty-six signals plotted on polyconic projections are Bushy Tree, Horton's Point Light, Box, House, Thomas' Barn, Sutton's Chimney, Woodworth's Chimney, White Cupola, Greenport Stand-pipe, Pilot Tree, Rock 17-B, Rock 18, Jerome Hill, Summer House, Rocky Point Life-Saving Station, Rock 19, Rock 19-A, Birds-eye, Brown's Hill, Long Beach Range, Moses' Rock Colonial House Farm

Chimney, St. Thomas, Rock 20, Orient Church Steeple, Rock 21, Plum Gut Light, Rock 22, Beebe, Plum Island Light, North Gable, Orient Hotel, White House Orient School.

These signals are located along the coast line between Horton's Point and Plum Island, where we have a system of thousand-acre townships, each divided into 100 ten-acre lots, thus being able to accommodate applicants for large or small acreage. Each signal station has comprehensive description and is tied up to and made a continuation of the United States Coast Survey. On these signals depend the location of oyster lots and tracts sometimes miles off shore in the sound and open up great present and future opportunity to the oyster industry.

I have carefully compared our system with that of other States, and can say our system of surveys is the most advanced of any, and if the signals are maintained, will be the key of the surveys of future generations in the oyster business.

During the fiscal year I have made sixty-one surveys of individual lots or tracts covering 6,992.2 acres. Of this area, 2,192.2 acres are original surveys for new leases, and 4,700 acres are for resurveys, as per following tabulated forms:

## SURVEYS FOR NEW LEASES.

|  | Lot No. | Raritan Bay. | Long Island Sound. | East Chester Bay. |
|---|---|---|---|---|
|  |  | *Acres.* | *Acres.* | *Acres.* |
| Herman Housman | 324 | ........... | 100 | ........... |
| Benjamin Merritt | 325 | ........... | ........... | 8 |
| New York Oyster Company | 983 | 8.6 | ........... | ........... |
| New York Oyster Company | 987 | 100 | ........... | ........... |
| Pausch Bros. Oyster Company | 989 | 200 | ........... | ........... |
| Pausch Bros. Oyster Company | 990 | 100 | ........... | ........... |
| S. T. Clock | 991 | 150 | ........... | ........... |
| J. A. Cochrane | 992 | 50 | ........... | ........... |
| Alexander Fraser Co. | 994 | 82.2 | ........... | ........... |
| Charles S. Sofield | 995 | 104.4 | ........... | ........... |
| G. W. Conklin | 996 | 93 | ........... | ........... |
| J. A. Cochrane | 997 | 108.4 | ........... | ........... |
| S. T. Clock | 998 | 100 | ........... | ........... |
| Herman Housman | 1,000 | 50 | ........... | ........... |
| J. H. Tilley, Jr. | 326 | ........... | 30.4 | ........... |
| G. H. Valentine | 981 | 11.4 | ........... | ........... |
| Asel F. Merrell | 982 | 45.8 | ........... | ........... |
| N. S. Ackerly | 984 | 150 | ........... | ........... |
| N. S. Ackerly | 985 | 100 | ........... | ........... |
| J. A. Cochrane | 986 | 75 | ........... | ........... |
| S. T. Clock | 988 | 150 | ........... | ........... |
| Fred W. Lewis | 993 | 89.4 | ........... | ........... |
| Thomas Hassett | 999 | 100.6 | ........... | ........... |
| F. F. Downs | Township 2255 & 3355 | ........... | 135 | ........... |
| F. F. Downs | Township 3355 | ........... | 25 | ........... |
|  | ........... | 1,868.8 | 290.4 | 8 |

Number of suryevs, 25.
Twenty-five surveys for new leases plotted on maps and surveyed, 2,192.2 acres.

## RELOCATION SURVEYS.

| Lot No. | | Raritan Bay. | Long Island Sound. | Jamaica Bay. | Charge. |
|---|---|---|---|---|---|
| | | *Acres.* | *Acres.* | *Acres.* | |
| 979 | G. T. Androvete | 20 | ........ | ........ | $13 20 |
| 980 | G. T. Androvete | 23.2 | | ........ | |
| 41 | George Call | ........ | 74.9 | ........ | 16 44 |
| Township 1152 | F. F. Downs | ........ | 100 | ........ | 19 76 |
| Township 1152–3 | F. F. Downs | ........ | 80 | | |
| 681 | Nelson Decker | 3.3 | ........ | ........ | 13 28 |
| Township 1152 | Adolf Johnsen | ........ | 60 | ........ | 5 50 |
| 983 | W. W. La Forge | 8.6 | ........ | ........ | 13 28 |
| 975 | W. W. La Forge | 32 | | ........ | |
| Township 1152–3 | W. J. Mills | ........ | 240 | ........ | 5 50 |
| Township 2254–3354 | W. J. Mills | ........ | 260 | ........ | 12 92 |
| 8 | John Quigley | ........ | ........ | 3.6 | 11 40 |
| 75L | Radel Oyster Company | ........ | 104.6 | ........ | 30 00 |
| 76L | Radel Oyster Company | ........ | 104.2 | | |
| 77L | Redal Oyster Company | ........ | 104 | | |
| 78L | Radel Oyster Company | ........ | 104 | | |
| 26 | Sealshipt Oyster System | ........ | 115.7 | ........ | 27.44 |
| 27 | Sealshipt Oyster System | ........ | 193.5 | | |
| 28 | Sealshipt Oyster System | ........ | 76.2 | | |
| 29 | Sealshipt Oyster System | ........ | 74.8 | | |
| 17 | Sealshipt Oyster System | ........ | 193.6 | | |
| 18 | Sealshipt Oyster System | ........ | 249 | | |
| 19 | Sealshipt Oyster System | ........ | 249 | | |
| 20 | Sealshipt Oyster System | ........ | 249.6 | | |
| 21 | Sealshipt Oyster System | ........ | 74.5 | | |
| 22 | Sealshipt Oyster System | ........ | 58.9 | | |
| 994 | Charles S. Sofield | 82.2 | ........ | ........ | 23 82 |
| 913 | D. K. Cole (Sealshipt) | 42.6 | ........ | ........ | ........ |
| 929 | D. K. Cole (Sealshipt) | 43.6 | ........ | ........ | 13.28 |
| 10 | Edward Weber | ........ | ........ | 4.4 | 11 40 |
| Township 1153–2253 | Radel Oyster Company | ........ | 342.6 | ........ | Included in above charge. |
| Township 2253 | Radel Oyster Company | ........ | 480 | | |
| Township 2253 | Radel Oyster Company | ........ | 150 | | |
| Township 1154–2254 | H. W. Schmeelk, Jr. | ........ | 360 | ........ | ........ |
| Township 1153–2253 | H. W. Schmeelk, Jr. | ........ | 197.4 | Between ot | her surveys. |
| Township 2255–3355 | Ronik & Mills | ........ | 140 | Between ot | her surveys. |
| | | 255.5 | 4,436.5 | 8 | $217 22 |

| | |
|---|---|
| Total number | 36 |
| Total acres resurveyed in Raritan Bay, Long Island Sound and Jamaica Bay | 4,700 |

Each year it becomes necessary to repair some of the signals, and at intervals to entirely rebuild others, and on new survey work it is generally necessary to have some tripod signals, although as many natural objects are taken as can be used to advantage.

St. Johnsland signal was erected in form of fifty-foot pole to replace a former pole carried away by storm. I recommend that the signals be inspected in the following spring and repairs made along the Staten Island and Long Island coast lines.

I have also made preliminary layout of Staten Island sound between Rossville and Ward's Point, for which applications have been recently filed.

In my last annual report I called attention to the fact that applications have been made for oyster leases in Manhassett bay, and that a triangulation survey would be necessary to survey the lots and that a power boat would be necessary while making the survey. During the year the Bureau of Marine Fisheries has obtained such a boat, but it was not put at my disposal for such work.

I respectfully suggest that proper provision be made to carry on the inspection and repair of the coast signals between Ward's Point, Staten Island, and Orient Point, Long Island.

Respectfully submitted,

CHARLES WYETH,

*Engineer, Bureau of Marine Fisheries.*

## GROUNDS APPLIED FOR AND GRANTED.

### SCHEDULE "A."

| Filed. 1910. | | Application No. | Location. | Acres. |
|---|---|---|---|---|
| Nov. | 21. | 1836 | Raritan Bay | 75 |
| | 30. | 1837 | Raritan Bay | 150 |
| Dec. | 2. | 1838 | Raritan Bay | 8.6 |
| | 2. | 1839 | Raritan Bay | 100 |
| | 7. | 1840 | Raritan Bay | 80 |
| | 7. | 1841 | Raritan Bay | 30 |
| | 14. | 1842 | Raritan Bay | 8 |
| | 14. | 1843 | Raritan Bay | 6 |

### SCHEDULE "A"— *Concluded.*

| Filed. 1911. | | Application No. | Location. | Acres. |
|---|---|---|---|---|
| Jan. | 17. | 1844 | East River | 20 |
| | 17. | 1845 | East River | 10 |
| | 17. | 1846 | East River | 20 |
| | 25. | 1847 | Raritan Bay | 100 |
| | 25. | 1848 | Raritan Bay | 100 |
| Feb. | 1. | 1849 | Raritan Bay | 200 |
| | 7. | 1850 | Long Island Sound | 30 |
| | 10. | 1851 | Raritan Bay | 50 |
| | 16. | 1852 | Raritan Bay | 100 |
| | 21. | 1853 | Raritan Bay | 75 |
| Mar. | 1. | 1854 | Hempstead Harbor | 1 |
| Feb. | 17. | 1855 | Long Island Sound | 40 |
| | 17. | 1856 | Long Island Sound | 50 |
| | 17. | 1857 | Long Island Sound | 50 |
| | 18. | 1858 | Raritan Bay | 150 |
| | 23. | 1859 | Raritan Bay | 100 |
| Mar. | 14. | 1860 | Raritan Bay | 150 |
| | 31. | 1861 | Raritan Bay | 100 |
| Apr. | 12. | 1862 | Long Island Sound | 100 |
| | 12. | 1863 | Raritan Bay | 50 |
| May | 3. | 1865 | Raritan Bay | 100 |
| | 8. | 1866 | East Chester Bay | 6 |
| Acres | | | | 2,059.6 |

#### RECAPITULATION

| | |
|---|---|
| Raritan Bay | 1,732.6 |
| East River | 50 |
| Long Island Sound | 270 |
| Hempstead | 1 |
| East Chester Bay | 6 |
| | 2,059.6 |

## APPLICATIONS CANCELLED ON ACCOUNT OF NATURAL GROWTH.

### Schedule "B."

| Nos. | Acres. | |
|---|---|---|
| 1842 | 8 | |
| 1843 | 6 | |
| 1844 | 20 | |
| 1845 | 10 | |
| 1846 | 20 | |
| | | 64 |
| Forfeited | | |
| 1864 | 90 | |
| | | 90 |
| Acres | | 154 |

## APPLICATIONS ON FILE.

### Schedule "C."

| Date of filing. 1911. | Application No. | Location. | Acres. |
|---|---|---|---|
| May 20. | 1867 | East Chester Bay | 2 |
| 20. | 1868 | East Chester Bay | 2.6 |
| June 16. | 1869 | Hudson River | 100 |
| 26. | 1870 | Raritan Bay | 200 |
| 21. | 1871 | Raritan Bay | 200 |
| 23. | 1872 | Raritan Bay | 50 |
| 23. | 1873 | Raritan Bay | 50 |
| July 1. | 1874 | Raritan Bay | 10 |
| 3. | 1875 | Long Island Sound | 135 |
| 6. | 1876 | Raritan Bay | 200 |
| 11. | 1877 | Long Island Sound | 137 |
| 13. | 1878 | Long Island Sound | 125 |
| 27. | 1879 | Long Island Sound | 50 |

### SCHEDULE "C"—*Continued.*

| 1911. Date of filing. | | Application No. | Location. | Acres. |
|---|---|---|---|---|
| Aug. | 23. | 1880 | Staten Island Sound | 10 |
| | 23. | 1881 | Staten Island Sound | 12 |
| | 23. | 1882 | Staten Island Sound | 5 |
| | 23. | 1883 | Staten Island Sound | 10 |
| | 21. | 1884 | Hempstead Harbor | 10 |
| | 23. | 1885 | Staten Island Sound | 10 |
| | 23. | 1886 | Staten Island Sound | 10 |
| | 23. | 1887 | Staten Island Sound | 10 |
| | 23. | 1888 | Staten Island Sound | 10 |
| | 23. | 1889 | Staten Island Sound | 10 |
| | 23. | 1890 | Staten Island Sound | 10 |
| | 23. | 1891 | Staten Island Sound | 5 |
| | 23. | 1892 | Staten Island Sound | 10 |
| | 23. | 1893 | Staten Island Sound | 10 |
| Sept. | 12. | 1894 | Staten Island Sound | 10 |
| | 12. | 1895 | Staten Island Sound | 10 |
| | 12. | 1896 | Staten Island Sound | 10 |
| | 18. | 1897 | Staten Island Sound | 10 |
| Aug. | 24. | 1898 | Staten Island Sound | 10 |
| | 24. | 1899 | Staten Island Sound | 10 |
| | 24. | 1900 | Staten Island Sound | 12 |
| Oct. | 10. | 1901 | Staten Island Sound | 10 |
| Aug. | 30. | 1902 | Staten Island Sound | 30 |
| Sept. | 12. | 1904 | Staten Island Sound | 20 |
| | 12. | 1905 | Staten Island Sound | 12 |
| | 12. | 1906 | Staten Island Sound | 60 |
| | 18. | 1909 | Staten Island Sound | 12 |
| | 18. | 1910 | Staten Island Sound | 6 |
| | 18. | 1911 | Staten Island Sound | 6 |
| | 18. | 1912 | Staten Island Sound | 11 |
| | 18. | 1913 | Staten Island Sound | 7 |
| | 18. | 1914 | Staten Island Sound | 6 |
| Oct. | 31. | 1915 | Raritan Bay | 150 |
| Acres | | | | 1,795.6 |

### SCHEDULE "C"— *Concluded.*

#### RECAPITULATION.

| | |
|---|---|
| East Chester Bay | 4.6 |
| Hudson River | 100 |
| Raritan Bay | 860 |
| Long Island Sound | 447 |
| Hempstead | 10 |
| Staten Island Sound | 374 |
| | 1,795.6 |

## FRANCHISES SURRENDERED TO THE STATE.

### SCHEDULE "D."

| Date. 1910. | | No. of F. | Lot No. | Location. | Acres. |
|---|---|---|---|---|---|
| Dec. | 30. | 220 | 20, 21, 22 | Little Neck Bay | 7.5 |
| 1912. | | | | | |
| Jan. | 13. | 250 | 180 | Raritan Bay | 2 |
| | 13. | 920 | 748 | Raritan Bay | 10.2 |
| | 13. | 590 | 627 | Raritan Bay | 3 |
| | 13. | 807 | 678 | Raritan Bay | 2.3 |
| Feb. | 14. | 729 | 652 | Raritan Bay | 6.1 |
| | 20. | 768 | 390 | Raritan Bay | 4.5 |
| | 23. | 24 | 137 | Raritan Bay | 15.1 |
| Mar. | 1. | 613 | 582 | Raritan Bay | 1.9 |
| May | 5. | 446 | 69 | Long Island Sound | 46.4 |
| June | 27. | 723 | 113 | Raritan Bay | 8.6 |
| | 27. | 215 | 248 | Raritan Bay | 1.5 |
| | 27. | 216 | 246 | Raritan Bay | .5 |
| | 29. | 954 | 826 | Raritan Bay | 1.4 |
| | 29. | 958 | 829 | Raritan Bay | 4.8 |
| July | 26. | 342 | 211 | Raritan Bay | 4.1 |
| Sept. | 13. | 926 | 760 | Raritan Bay | 3.8 |
| Acres | | | | | 123.7 |

#### TO DATE.

| | | | | | |
|---|---|---|---|---|---|
| Oct. | 13. | 84 | 89 | Raritan Bay | .7 |

SCHEDULE "D"— *Concluded.*

RECAPITULATION.

| | |
|---|---|
| Little Neck Bay | 7.5 |
| Raritan Bay | 46.4 |
| Long Island Sound | 69.8 |
| | 123.7 |

## LEASES SURRENDERED TO THE STATE.

SCHEDULE "E."

| Date. 1910. | | No. of L. | No. of Lot. | Location. | Acres. |
|---|---|---|---|---|---|
| Oct. | 1. | 1087 | 304 | L. I. Sound | 15.4 |
| Nov. | 15. | 700 | N. E., N. W. & S. E. quarters Section "D" Township 715 | L. I. Sound | 187.5 |
| Dec. | 16. | 1211 | 26 | Jamaica Bay | 4.4 |
| | 16. | 1160 | 197 | Jamaica Bay | 3.8 |
| Dec. | 29. | 1141 | 631 | Jamaica Bay | 8.6 |
| | 30. | 623 | 583 | Jamaica Bay | 7 |
| | 30. | 380 | 364 | Jamaica Bay | 5.4 |
| 1911. | | | | | |
| Jan. | 12. | 351 | 336 | Jamaica Bay | 6.6 |
| Feb. | 14. | 511 | 498 | Jamaica Bay | 9.6 |
| | 20. | 765 | 240 | East Chester Bay | .6 |
| | 20. | 764 | 241 | East Chester Bay | 3.8 |
| | 20. | 763 | 242 | East Chester Bay | 6.2 |
| | 20. | 774 | 253 | East Chester Bay | 12.6 |
| | 20. | 1091 | 259 | East Chester Bay | 1 |
| | 20. | 775 | 260 | East Chester Bay | 2.2 |
| Apr. | 4. | 789 | 271 | L. I. Sound | 28.6 |
| | 7. | 783 | 274 | East Chester Bay | 34.8 |
| | 7. | 785 | 275 | East Chester Bay | 32.6 |
| | 19. | 1162 | 310 | East Chester Bay | 6.8 |
| May | 9. | 326 | East part 305 | Jamaica Bay | 2.2 |
| | 9. | 1324 | East part 49 | Jamaica Bay | 3 |

### SCHEDULE "E"—*Concluded.*

| Date. 1910. | | No. of L. | No. of Lot. | Location. | Acres. |
|---|---|---|---|---|---|
| July | 17. | 275 | 242...... | Jamaica Bay ... | 3.2 |
| Sept. | 13. | 729 | 762...... | Raritan Bay .... | 3 |
| | 19. | 1328 | 16, 17, 26, 27, 36, 37 ....... | L. I. Sound .... | 60 |
| | 19. | 1329 | 18, 28...... | L. I. Sound .... | 20 |
| Acres................................. | | | | | 468.9 |

#### TO DATE.

| | | | | | |
|---|---|---|---|---|---|
| Nov. | 3. | 199 | 249...... | Jamaica Bay ... | 7 |

#### RECAPITULATION.

| | |
|---|---|
| Long Island Sound.......................... | 311.5 |
| Jamaica Bay................................ | 53.8 |
| East Chester Bay........................... | 100.6 |
| Raritan Bay................................ | 3 |
| | 468.9 |

## SCHEDULE "F"

| NAME. | Lot No. | Location. | Acres. | Franchise granted. | Annual tax. |
|---|---|---|---|---|---|
| Alexander Frazer | 21 | Raritan Bay | .7 | Jan. 4, 1888 | $0 17 |
| E. P. Manee | 63 | Raritan Bay | 5.5 | Jan. 4, 1888 | 1 35 |
| Elsworth Company | 105 | Raritan Bay | 5.0 | Jan. 4, 1888 | 1 25 |
| Lyman W. Bedell | 115 | Raritan Bay | 8.4 | Feb. 6, 1888 | 2 10 |
| . H. Elsworth | 130 | Raritan Bay | 7.2 | Feb. 6, 1888 | 1 80 |
| Wesley Thompson | 126 | Raritan Bay | 5.8 | Feb. 6, 1888 | 1 45 |
| Standard Oyster Company | 74 | Raritan Bay | 6.6 | Feb. 6, 1888 | 1 65 |
| S. D. Sprague | 65 | Raritan Bay | 5.2 | Feb. 6, 1888 | 1 30 |
| B. C. Price | 48 | Raritan Bay | 3.4 | Feb. 6, 1888 | 85 |
| J. & B. K. Simonson | 51 | Raritan Bay | 1.4 | Feb. 6, 1888 | 35 |
| Henry Van Name | 56 | Raritan Bay | 5.6 | Feb. 6, 1888 | 1 40 |
| Alfred DuBois | 72 | Raritan Bay | 2.9 | Feb. 6, 1888 | 73 |
| Elsworth Company | 80 | Raritan Bay | 2.4 | Feb. 6, 1888 | 60 |
| Elsworth Company | 83 | Raritan Bay | 2.8 | Feb. 6, 1888 | 70 |
| Elsworth Company | 87 | Raritan Bay | 2.7 | Feb. 6, 1888 | 68 |
| T. F. & S. DeHart | 10 | Raritan Bay | .9 | Feb. 6, 1888 | 23 |
| Elsworth Company | 132 | Raritan Bay | 12.6 | Feb. 6, 1888 | 3 15 |
| A. S. Joline | 58 | Raritan Bay | 11.4 | Feb. 6, 1888 | 2 85 |
| Fletcher Decker | 127 | Raritan Bay | 2.5 | April 2, 1888 | 62 |
| Al. F. Merrell | 118 | Raritan Bay | 5.2 | Feb. 6, 1888 | 1 30 |
| Nils Pedersen | 124 | Raritan Bay | 1.8 | Mar. 5, 1888 | 45 |
| Nils Pedersen | 134 | Raritan Bay | 4.3 | Mar. 5, 1888 | 1 07 |
| J. M. Sleight | 129 | Raritan Bay | 1.1 | Jan. 4, 1888 | 27 |
| J. M. Sleight | 125 | Raritan Bay | 11.9 | Mar. 5, 1888 | 2 98 |
| M. P. M. Van Name | 12 | Raritan Bay | 6.6 | Jan. 4, 1888 | 1 65 |
| A. M. Cannon | 45 | Raritan Bay | 7.7 | Mar. 5, 1888 | 18 |
| J. D. Noe | 33 | Raritan Bay | .9 | Mar. 5, 1888 | 23 |
| C. S. Sofield | 34 | Raritan Bay | .7 | Jan. 4, 1888 | 17 |
| C. S. Sofield | 28 | Raritan Bay | .6 | Jan. 4, 1888 | 15 |
| R. C. DuBois | 71 | Raritan Bay | 6.2 | Mar. 5, 1888 | 1 55 |
| Elsworth Company | 86 | Raritan Bay | 4.3 | Mar. 5, 1888 | 1 07 |
| Cor. Simonson | 52 | Raritan Bay | .8 | Mar. 5, 1888 | 20 |
| Wm. Joline | 70 | Raritan Bay | 10.5 | Mar. 5, 1888 | 2 63 |
| C. V. Decker | 50 | Raritan Bay | 1.2 | Mar. 5, 1888 | 30 |
| O. L. Decker | 37 | Raritan Bay | 1.7 | April 2, 1888 | 43 |
| B. K. Simonson | 49 | Raritan Bay | 1.8 | Mar. 5, 1888 | 45 |
| Standard Oyster Company | 53 | Raritan Bay | 6.8 | Mar. 5, 1888 | 1 70 |
| Standard Oyster Company | 73 | Raritan Bay | 3.8 | Mar. 5, 1888 | 95 |
| Elmer Price | 6 | Raritan Bay | 1.0 | Mar. 5, 1888 | 25 |

| | | | | | | |
|---|---|---|---|---|---|---|
| David Joline | 9 | Raritan Bay | 1.3 | Mar. 5, 1888 | | 33 |
| C. & C. M. Decker | 25 | Raritan Bay | .9 | April 2, 1888 | | 23 |
| W. M. Manee | 69 | Raritan Bay | 2.2 | Mar. 5, 1888 | | 55 |
| W. M. Manee | 76 | Raritan Bay | 2.1 | Mar. 5, 1888 | | 53 |
| Sealshipt Oyster System | 9 | Smithtown Bay | 106.6 | Jan. 4, 1888 | 26 | 65 |
| Sealshipt Oyster System | 10 | Smithtown Bay | 106.1 | April 2, 1888 | 26 | 53 |
| Sealshipt Oyster System | 8 | Smithtown Bay | 106.4 | April 2, 1888 | 26 | 60 |
| Sealshipt Oyster System | 7 | Smithtown Bay | 107.8 | April 2, 1888 | 26 | 95 |
| Sealshipt Oyster System | 6 | Smithtown Bay | 108.9 | April 2, 1888 | 27 | 23 |
| Sealshipt Oyster System | 5 | Smithtown Bay | 109.5 | April 2, 1888 | 27 | 38 |
| Sealshipt Oyster System | 4 | Smithtown Bay | 110.2 | Jan. 4, 1888 | 27 | 55 |
| Sealshipt Oyster System | 3 | Smithtown Bay | 105.0 | April 2, 1888 | 26 | 22 |
| Sealshipt Oyster System | 2 | Smithtown Bay | 112.8 | April 2, 1888 | 28 | 20 |
| Sealshipt Oyster System | 1 | Smithtown Bay | 113.2 | April 2, 1888 | 28 | 30 |
| T. F. & S. DeHart | 14 | Raritan Bay | 1.5 | Feb. 6, 1888 | | 37 |
| E. Price & G. H. Merrell | 4 | Raritan Bay | 4.6 | April 2, 1888 | 1 | 15 |
| Elsworth Company | 79 | Raritan Bay | 1.3 | Mar. 5, 1888 | | 32 |
| Sherman Decker | 22 | Raritan Bay | .5 | April 2, 1888 | | 13 |
| W. N. Manee | 89 | Raritan Bay | .7 | Mar. 5, 1888 | | 17 |
| W. N. Manee | 77 | Raritan Bay | 2.0 | April 2, 1888 | | 50 |
| Almer Decker | 18 | Raritan Bay | .5 | Mar. 5, 1888 | | 13 |
| T. F. & S. DeHart | 17 | Raritan Bay | .9 | June 13, 1888 | | 23 |
| Sealshipt Oyster System | Section C | Long Island Sound | 250.0 | July 6, 1888 | 62 | 50 |
| N. S. Ackerly Son Company | Several | Long Island Sound | 88.9 | Sept. 4, 1888 | 22 | 23 |
| Standard Oyster Company | Several B. & A. | Long Island Sound | 250.0 | Sept. 4, 1888 | 62 | 50 |
| Radel Oyster Company | 5 | Long Island Sound | 171.2 | Dec. 11, 1888 | 42 | 80 |
| Radel Oyster Company | 70 | Long Island Sound | 235.2 | Nov. 7, 1888 | 58 | 80 |
| Radel Oyster Company | 4 | Long Island Sound | 101.3 | Jan. 8, 1888 | 25 | 33 |
| Sealshipt Oyster System | Several | Long Island Sound | 100.0 | Oct. 1, 1888 | 25 | 00 |
| E. T. Butler | 78 | Raritan Bay | 27.2 | April 2, 1888 | 6 | 80 |
| J. M. Benner | 8 | Long Island Sound | 75.3 | Oct. 1, 1888 | 18 | 83 |
| Roscoe Bishop | 9 | Long Island Sound | 38.7 | Nov. 7, 1888 | 9 | 67 |
| O. M. G. Bartow | 10 | Long Island Sound | 17.5 | Nov. 7, 1888 | 4 | 28 |
| Pausch Brothers Oyster Company | 12 | Long Island Sound | 213.2 | Nov. 7, 1888 | 53 | 20 |
| Pausch Brothers Oyster Company | 13 | Long Island Sound | 68.4 | Nov. 7, 1888 | 17 | 10 |
| Cochrane & Sons Oyster Company | 13 | Long Island Sound | 61.2 | Nov. 7, 1888 | 15 | 30 |
| L. G. Griffing | 13 | Long Island Sound | 83.6 | Nov. 7, 1888 | 20 | 90 |
| N. S. Ackerly | 14 | Long Island Sound | 172.2 | July 6, 1888 | 43 | 05 |
| J. L. Kerrigan | 15 | Long Island Sound | 197.8 | Aug. 6, 1888 | 49 | 45 |
| N. S. Ackerly | 16L | Long Island Sound | 21.0 | Nov. 7, 1888 | 5 | 25 |
| H. D. Ackerly | 16L | Long Island Sound | 56.0 | Nov. 7, 1888 | 14 | 00 |
| H. D. Ackerly | 17L | Long Island Sound | 193.6 | Nov. 7, 1888 | 48 | 40 |
| Sealshipt Oyster System | 18L | Long Island Sound | 249.0 | Nov. 7, 1888 | 62 | 25 |
| Sealshipt Oyster System | 40L | Long Island Sound | 46.3 | Nov. 7, 1888 | 11 | 57 |
| G. E. Call | 41L | Long Island Sound | 74.9 | Nov. 7, 1888 | 18 | 73 |
| Sealshipt Oyster System | 27L | Long Island Sound | 193.5 | Nov. 7, 1888 | 48 | 38 |
| Sealshipt Oyster System | 26L | Long Island Sound | 115.7 | April 2, 1888 | 28 | 93 |
| Elsworth Company | 84 | Raritan Bay | 7.8 | Nov. 7, 1888 | 1 | 95 |
| Elsworth Company | 85 | Raritan Bay | 1.4 | Nov. 7, 1888 | | 35 |

## SCHEDULE "F" — *Continued*

| NAME. | Lot No. | Location. | Acres. | Franchise granted. | Annual tax. |
|---|---|---|---|---|---|
| Wm. Bush | 11 | Raritan Bay | 2.5 | Nov. 7, 1888 | $0 63 |
| Frank Rogers | 36L | Long Island Sound | 110.4 | Nov. 7, 1888 | 27 60 |
| Frank Rogers | 37L | Long Island Sound | 98.0 | Nov. 7, 1888 | 24 50 |
| W. N. Manee | 66 | Raritan Bay | 2.0 | Nov. 7, 1888 | 50 |
| Frank Rogers | 35L | Long Island Sound | 139.0 | Nov. 7, 1888 | 34 75 |
| R. L. Smith | 29L | Long Island Sound | 74.8 | April 2, 1888 | 18 70 |
| R. L. Smith | 33L | Long Island Sound | 78.8 | April 2, 1888 | 19 67 |
| A. S. Lamb | 32L | Long Island Sound | 79.4 | April 2, 1888 | 19 85 |
| Andrew Radel | 3L | Long Island Sound | 173.5 | Nov. 7, 1888 | 43 38 |
| Sealshipt Oyster System | 20L | Long Island Sound | 249.6 | Nov. 7, 1888 | 62 40 |
| E. M. Smith | 30L | Long Island Sound | 75.6 | April 2, 1888 | 18 90 |
| Sealshipt Oyster System | 21L | Long Island Sound | 74.5 | July 6, 1888 | 28 63 |
| Sealshipt Oyster System | 22L | Long Island Sound | 58.9 | Nov. 7, 1888 | 14 72 |
| E. M. Smith | 31L | Long Island Sound | 73.2 | April 3, 1888 | 18 30 |
| Sealshipt Oyster System | 28L | Long Island Sound | 76.2 | April 2, 1888 | 19 05 |
| Theodore Johnson | 39 | Raritan Bay | .6 | Nov. 7, 1888 | 15 |
| J. W. Journeay | 88 | Raritan Bay | 2.5 | Nov. 7, 1888 | 63 |
| Henry DeHart | 1 | Raritan Bay | 7.8 | June 4, 1888 | 1 95 |
| Elsworth Company | 26 | Raritan Bay | 1.0 | Nov. 2, 1888 | 25 |
| E. G. Butler | 31 | Raritan Bay | .6 | Nov. 2, 1888 | 15 |
| Elsworth Company | 81 | Raritan Bay | 1.3 | Aug. 6, 1888 | 32 |
| Elsworth Company | 82 | Raritan Bay | 1.3 | Noy. 7, 1888 | 32 |
| A. Martineau | 8 | Raritan Bay | 1.2 | Nov. 7, 1888 | 30 |
| Standard Oyster Company | 41 | Raritan Bay | .5 | Nov. 7, 1888 | 13 |
| C. B. Price | 140B | Raritan Bay | 3.2 | May 14, 1888 | 80 |
| Elmer Price | 140A | Raritan Bay | 3.3 | Nov. 7, 1888 | 83 |
| Elmer Price | 274 | Raritan Bay | 1.8 | Nov. 7, 1888 | 45 |
| David Price | 110 | Raritan Bay | 1.0 | Nov. 7, 1888 | 25 |
| J. M. Benner | 44L | Long Island Sound | 8.8 | Nov. 7, 1888 | 2 20 |
| Wm. Buchanan | 42 | Raritan Bay | 4.7 | Nov. 7, 1888 | 1 18 |
| J. M. Benner | 50L | Long Island Sound | 8.8 | Nov. 7, 1888 | 2 20 |
| J. M. Benner | 46L | Long Island Sound | 8.8 | Nov. 7, 1888 | 2 20 |
| J. M. Benner | 45L | Long Island Sound | 8.8 | Nov. 7, 1888 | 2 20 |
| D. O. Noe & Son | 5 | Raritan Bay | 5.7 | Nov. 7, 1888 | 1 42 |
| J. M. Benner | 47L | Long Island Sound | 8.8 | Nov. 7, 1888 | 2 20 |
| S. DeHart | 136 | Raritan Bay | 4.5 | Dec. 11, 1888 | 1 13 |
| J. M. Benner | 51L | Long Island Sound | 8.8 | Nov. 7, 1888 | 2 20 |
| J. M. Benner | 49L | Long Island Sound | 8.8 | Jan. 8, 1889 | 2 20 |
| J. M. Benner | 43L | Long Island Sound | 8.8 | Jan. 8, 1889 | 2 20 |

| | | | | | |
|---|---|---|---|---|---|
| Radel Oyster Company | 6L | Long Island Sound | 146.4 | Nov. 7, 1888 | 36 60 |
| Ackerly & Son Company | Several | Long Island Sound | 40.0 | Dec. 11, 1888 | 10 00 |
| Ackerly & Son Company | Q | Long Island Sound | 30.0 | Dec. 11, 1888 | 7 50 |
| J. M. Benner | 48L | Long Island Sound | 8.8 | Nov. 7, 1888 | 2 20 |
| F. T. Boerum | 27 | Little Neck Bay | 2.5 | Jan. 8, 1889 | 63 |
| David Price | 30 | Raritan Bay | 1.8 | Nov. 7, 1888 | 45 |
| G. T. Woglam | 20 | Raritan Bay | 3.7 | Nov. 7, 1888 | 92 |
| J. M. Benner | 42L | Long Island Sound | 8.8 | Nov. 7, 1888 | 2 20 |
| Noe & Son | 23 | Raritan Bay | .8 | Nov. 7, 1888 | 20 |
| Haviland & Odell | 5-6-7 | Little Neck Bay | 7.5 | Jan. 8, 1889 | 1 88 |
| N. S. Ackerly | Several | Long Island Sound | 60.0 | Jan. 12, 1889 | 15 00 |
| J. M. Belford | Several | Long Island Sound | 70.0 | Jan. 12, 1889 | 17 50 |
| B. W. Carll | Several | Long Island Sound | 90.0 | Jan. 12, 1889 | 22 50 |
| Sealshipt Oyster System | Several | Long Island Sound | 100.0 | Jan. 12, 1889 | 25 00 |
| J. M. Benner | 2L | Long Island Sound | 67.2 | Jan. 8, 1889 | 16 80 |
| Haviland & Odell | 15 | Little Neck Bay | 2.5 | Jan. 8, 1889 | 62 |
| Theodore Johnson | 38 | Raritan Bay | .5 | Feb. 12, 1889 | 13 |
| W. N. Manee | 156 | Raritan Bay | 2.1 | Sept. 4, 1888 | 53 |
| F. K. Conant | Several | Little Neck Bay | 7.5 | Feb. 12, 1889 | 1 88 |
| F. K. Conant | 9-10 | Little Neck Bay | 5.0 | Jan. 8, 1889 | 1 25 |
| Sealshipt Oyster System | 19L | Long Island Sound | 249.0 | May 14, 1889 | 62 45 |
| M. & P. M. VanName | 12½ | Raritan Bay | .4 | Mar. 12, 1889 | 10 |
| Polworth & Elsworth | 245 | Raritan Bay | 3.6 | May 14, 1889 | 90 |
| Polworth & Elsworth | 157 | Raritan Bay | 8.3 | May 14, 1889 | 2 07 |
| Elsworth Company | 249 | Raritan Bay | 5.0 | May 14, 1889 | 1 25 |
| Polworth & Elsworth | 241 | Raritan Bay | 12.0 | May 14, 1889 | 3 00 |
| Polworth & Elsworth | 243 | Raritan Bay | 7.0 | May 14, 1889 | 1 75 |
| Polworth & Elsworth | 247 | Raritan Bay | 6.5 | May 14, 1889 | 1 63 |
| Elsworth Company | 184 | Raritan Bay | 2.8 | May 14, 1889 | 70 |
| Polworth & Elsworth | 372 | Raritan Bay | 2.0 | May 14, 1889 | 50 |
| H. Androvette | 178 | Raritan Bay | 2.4 | May 14, 1889 | 60 |
| Elsworth Company | 182 | Raritan Bay | 2.4 | May 14, 1889 | 60 |
| A. F. Merrell | 168 | Raritan Bay | 6.6 | May 14, 1889 | 1 65 |
| Standard Oyster Company | 186 | Raritan Bay | 5.1 | May 14, 1889 | 1 28 |
| D. Joline | 306 | Raritan Bay | 9.9 | May 14, 1889 | 2 47 |
| D. Joline | 324 | Raritan Bay | 5.0 | May 14, 1889 | 1 25 |
| D. Joline | 302 | Raritan Bay | 4.3 | May 14, 1889 | 1 07 |
| Frank Joline | 300 | Raritan Bay | 4.1 | May 14, 1889 | 1 03 |
| Elsworth & Polworth | 376 | Raritan Bay | 5.4 | May 14, 1889 | 1 35 |
| A. Martineau | 385 | Raritan Bay | 4.2 | May 14, 1889 | 1 05 |
| A. F. Merrell | 170 | Raritan Bay | 6.0 | May 14, 1889 | 1 50 |
| A. F. Merrell | 193 | Raritan Bay | 11.9 | May 14, 1889 | 2 98 |
| A. F. Merrell | 161 | Raritan Bay | 6.8 | May 14, 1889 | 1 70 |
| A. F. Merrell | 195 | Raritan Bay | 8.5 | May 14, 1889 | 2 12 |
| Elsworth Company | 234 | Raritan Bay | 2.0 | May 14, 1889 | 50 |
| Standard Oyster Company | 147 | Raritan Bay | 37.6 | May 14, 1889 | 9 40 |
| J. M. Benner | 67L | Long Island Sound | 12.3 | July 9, 1889 | 3 07 |
| W. W. Smith | 67L | Long Island Sound | 12.3 | July 9, 1889 | 3 08 |

## SCHEDULE "F" — *Continued*

| NAME. | Lot No. | Location. | Acres. | Franchise granted. | Annual tax. |
|---|---|---|---|---|---|
| Jacob Bumstead | 67L | Long Island Sound | 18.0 | July 9, 1889 | $4 50 |
| F. T. Butler | 392 | Raritan Bay | 20.5 | July 9, 1889 | 5 13 |
| Androvette & Thompson | 392 | Raritan Bay | 11.0 | July 9, 1889 | 2 75 |
| Haviland & Odell | 384 | Raritan Bay | 7.5 | July 9, 1889 | 1 87 |
| Elsworth Company | 369 | Raritan Bay | 14.5 | May 14, 1889 | 3 65 |
| W. C. Porth | 325 | Raritan Bay | 8.0 | July 9, 1889 | 2 00 |
| Standard Oyster Company | 174 | Raritan Bay | 18.4 | May 14, 1889 | 4 60 |
| J. M. Benner | 68 | Long Island Sound | 28.2 | May 14, 1889 | 7 05 |
| Elsworth Company | 202 | Raritan Bay | 4.6 | May 14, 1889 | 1 15 |
| George Marshall | 231 | Raritan Bay | 4.0 | July 9, 1889 | 1 00 |
| J. M. Benner | 55L | Long Island Sound | 14.0 | May 14, 1889 | 3 50 |
| Elsworth Company | 148 | Raritan Bay | 67.9 | Aug. 13, 1889 | 16 97 |
| Bertha Sharrott | 148 | Raritan Bay | 4.2 | Aug. 13, 1889 | 1 05 |
| Thomas S. Merrell | 148 | Raritan Bay | 4.8 | Aug. 13, 1889 | 1 20 |
| Androvette & Thompson | 148 | Raritan Bay | 3.6 | Aug. 13, 1889 | 90 |
| C. O. Sprague | 355 | Raritan Bay | 2.5 | May 14, 1889 | 63 |
| C. O. Sprague | 286 | Raritan Bay | 1.7 | May 14, 1889 | 43 |
| E. B. Lewis | 177 | Raritan Bay | 1.2 | May 14, 1889 | 30 |
| Alfred Cannon | 454 | Raritan Bay | .8 | May 6, 1890 | 20 |
| Elsworth Company | 439 | Raritan Bay | 4.0 | May 14, 1889 | 1 00 |
| Forrester & Hoag | 347 | Raritan Bay | 5.9 | Aug. 13, 1889 | 1 48 |
| G. E. Forrester | 361 | Raritan Bay | 1.6 | Aug. 13, 1889 | 40 |
| G. E. Forrester | 359 | Raritan Bay | 4.2 | Aug. 13, 1889 | 1 05 |
| Forrester & Hoag | 353 | Raritan Bay | 1.8 | May 14, 1889 | 45 |
| W. C. Porth | 333 | Raritan Bay | 1.5 | Mar. 11, 1890 | 37 |
| W. C. Porth | 329 | Raritan Bay | 14.5 | Mar. 11, 1890 | 3 63 |
| Fraser & Houghwout | 176 | Raritan Bay | 14.8 | May 14, 1889 | 3 70 |
| Elmer Price | 260 | Raritan Bay | 3.0 | Aug. 13, 1889 | 75 |
| Elsworth Company | 301 | Raritan Bay | 3.6 | May 14, 1880 | 90 |
| Elsworth Company | 299 | Raritan Bay | 3.8 | May 14, 1889 | 95 |
| Elsworth Company | 285 | Raritan Bay | 1.8 | Aug. 13, 1889 | 45 |
| Sealshipt Oyster System | 259 | Raritan Bay | 6.6 | Aug. 13, 1889 | 1 65 |
| Elsworth Company | 371 | Raritan Bay | 5.1 | May 14, 1889 | 1 27 |
| L. W. Bedell | 204 | Raritan Bay | 11.5 | May 14, 1889 | 2 88 |
| L. W. Bedell | 221 | Raritan Bay | 4.8 | May 14, 1889 | 1 20 |
| Polworth & Elsworth | 233 | Raritan Bay | 11.0 | May 14, 1889 | 2 75 |
| G. M. Still | 411 | Raritan Bay | 5.4 | Mar. 11, 1890 | 1 35 |
| Henry DeHart | 429 | Raritan Bay | 38.8 | May 14, 1889 | 9 70 |
| Adeline Bedell | 185 | Raritan Bay | 1.2 | May 14, 1889 | 30 |

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|---|---|---|---|---|---|
| W. C. Porth | 319 | Raritan Bay | 5.0 | May 14, 1889 | 1 25 |
| Elsworth Company | 305 | Raritan Bay | 1.2 | May 14, 1889 | 30 |
| Elsworth Company | 363 | Raritan Bay | 8.0 | May 14, 1889 | 2 00 |
| A. F. Merrell | 270 | Raritan Bay | 8.8 | May 14, 1889 | 2 20 |
| A. F. Merrell | 282 | Raritan Bay | 9.5 | May 14, 1889 | 2 38 |
| J. E. LaForge | 358 | Raritan Bay | 3.0 | May 14, 1889 | 75 |
| W. H. B. Totten | 19 | Raritan Bay | 6.8 | July 9, 1889 | 1 70 |
| Elmer Price | 264 | Raritan Bay | 1.2 | May 14, 1889 | 30 |
| T. F. & S. DeHart | 149 | Raritan Bay | 8.0 | Mar. 11, 1890 | 2 00 |
| T. F. & S. DeHart | 145 | Raritan Bay | 14.6 | Mar. 11, 1890 | 3 65 |
| Elsworth Company | 373 | Raritan Bay | 4.6 | May 14, 1889 | 1 15 |
| J. I. Merrell | 352 | Raritan Bay | 4.3 | May 14, 1889 | 1 08 |
| Elsworth Company | 293 | Raritan Bay | 2.8 | May 14, 1889 | 70 |
| Daniel Burbank | 288 | Raritan Bay | 15.4 | May 14, 1889 | 3 85 |
| Elmer Price | 268 | Raritan Bay | 1.6 | Mar. 11, 1890 | 40 |
| W. C. Porth | 323 | Raritan Bay | 13.8 | July 9, 1889 | 3 45 |
| W. C. Porth | 321 | Raritan Bay | 3.2 | July 9, 1889 | 80 |
| W. C. Porth | 331 | Raritan Bay | 5.2 | July 9, 1889 | 1 30 |
| L. W. Bedell | 206 | Raritan Bay | 4.8 | May 14, 1889 | 1 20 |
| L. W. Bedell | 223 | Raritan Bay | 3.6 | May 14, 1889 | 90 |
| L. W. Bedell | 219 | Raritan Bay | 3.0 | Mar. 11, 1890 | 75 |
| L. W. Bedell | 225 | Raritan Bay | 1.6 | Mar. 11, 1890 | 40 |
| Elsworth Company | 208 | Raritan Bay | 1.6 | Mar. 11, 1890 | 40 |
| R. W. & W. W. LaForge | 281 | Raritan Bay | 5.6 | May 14, 1889 | 1 40 |
| Christian Walle | 279 | Raritan Bay | 2.2 | May 14, 1889 | 55 |
| Henry DeHart | 427 | Raritan Bay | 16.0 | May 14, 1889 | 4 00 |
| Elsworth Company | 273 | Raritan Bay | 2.8 | May 14, 1889 | 70 |
| A. Martineau | 228 | Raritan Bay | 9.0 | July 9, 1889 | 2 25 |
| Elsworth Company | 441 | Raritan Bay | 10.0 | May 14, 1889 | 2 50 |
| A. F. Merrell | 437 | Raritan Bay | 2.9 | May 14, 1889 | 73 |
| E. B. Lewis | 189 | Raritan Bay | 1.2 | Mar. 11, 1890 | 30 |
| E. B. Lewis | 191 | Raritan Bay | .5 | Mar. 11, 1890 | 13 |
| E. B. Lewis | 175 | Raritan Bay | 1.5 | Mar. 11, 1890 | 37 |
| Charles Bedell | 183 | Raritan Bay | 2.0 | Mar. 11, 1890 | 50 |
| J. I. Merrell | 258 | Raritan Bay | 13.8 | Nov. 12, 1889 | 3 45 |
| Elsworth Company | 458A | Raritan Bay | .9 | Mar. 11, 1890 | 23 |
| W. C. Porth | 327 | Raritan Bay | 5.0 | May 14, 1889 | 1 25 |
| Colon & Crocheron | 412 | Raritan Bay | 2.5 | July 9, 1890 | 62 |
| A. F. Merrell | 280 | Raritan Bay | 4.0 | May 13, 1889 | 1 00 |
| Elsworth Company | 194 | Raritan Bay | 6.0 | Mar. 11, 1890 | 1 50 |
| Elsworth Company | 295 | Raritan Bay | 5.6 | May 14, 1889 | 1 40 |
| G. M. Still | 253 | Raritan Bay | 2.6 | May 14, 1889 | 65 |
| A. W. Androvette | 449 | Raritan Bay | 2.4 | Mar. 11, 1890 | 60 |
| Nelson Jacklin | 192 | Raritan Bay | 1.0 | Mar. 11, 1890 | 75 |
| Elsworth Company | 197 | Raritan Bay | 10.0 | Aug. 12, 1890 | 2 50 |
| Bedell & Land | 114 | Raritan Bay | 10.5 | May 14, 1889 | 2 63 |
| Steinmire & Fisher | 348 | Raritan Bay | 9.6 | May 14, 1889 | 2 40 |
| D. Burbank | 382 | Raritan Bay | 16.8 | Mar. 11, 1890 | 4 20 |

## Schedule "F" — *Continued*

| NAME. | Lot No. | Location. | Acres. | Franchise granted. | Annual tax. |
|---|---|---|---|---|---|
| R. W. LaForge | 212 | Raritan Bay | 1.5 | Mar. 11, 1890 | $0 37 |
| T. F. Sprague | 409 | Raritan Bay | 2.5 | Mar. 11, 1890 | 63 |
| Sherman Decker | 116 | Raritan Bay | 1.55 | Mar. 11, 1890 | 39 |
| S. C. Joline | 116 | Raritan Bay | 1.55 | Mar. 11, 1890 | 39 |
| D. Burbank | 380 | Raritan Bay | 12.0 | Nov. 12, 1889 | 3 00 |
| Sealshipt Oyster System | 354 | Raritan Bay | 1.9 | Nov. 12, 1889 | 48 |
| Standard Oyster Company | 216 | Raritan Bay | 12.6 | Oct. 14, 1890 | 3 15 |
| J. L. Merrell | 232 | Raritan Bay | 12.0 | Oct. 14, 1890 | 3 00 |
| Elsworth Company | 260 | Raritan Bay | 3.4 | Nov. 12, 1889 | 85 |
| R. W. LaForge | 143 | Raritan Bay | 1.0 | Feb. 14, 1893 | 25 |
| G. M. Still | 401 | Raritan Bay | 3.0 | Mar. 11, 1890 | 75 |
| Mrs. Charles Ziegler | 416 | Raritan Bay | 2.3 | Nov. 12, 1889 | 58 |
| G. M. Still | 171 | Raritan Bay | 12.8 | May 14, 1889 | 3 20 |
| David Johnson | 167 | Raritan Bay | 2.0 | May 14, 1889 | 50 |
| A. Martineau | 377 | Raritan Bay | 4.0 | Mar. 11, 1890 | 1 00 |
| David Johnson | 262 | Raritan Bay | 1.8 | May 14, 1889 | 45 |
| G. M. Still | 284 | Raritan Bay | 6.6 | May 14, 1889 | 1 65 |
| J. H. Price | 196 | Raritan Bay | 1.1 | May 14, 1889 | 27 |
| J. H. Price | 198 | Raritan Bay | 2.0 | May 14, 1889 | 50 |
| Standard Oyster Company | 240 | Raritan Bay | 3.2 | Oct. 14, 1890 | 80 |
| Standard Oyster Company | 226 | Raritan Boy | 18.0 | Oct. 14, 1890 | 4 50 |
| Fred Wagner | 431 | Raritan Bay | 3.5 | Oct. 14, 1890 | 88 |
| Elsworth Company | 111 | Raritan Bay | 7.8 | Nov. 12, 1889 | 1 95 |
| A. S. Joline | 340 | Raritan Bay | 1.6 | Nov. 12, 1889 | 40 |
| Steinmire & Fisher | 342 | Raritan Bay | 5.0 | Nov. 12, 1889 | 1 25 |
| Elsworth Company | 365 | Raritan Bay | 7.7 | Jan. 14, 1890 | 1 92 |
| Elsworth Company | 367 | Raritan Bay | 4.3 | May 14, 1889 | 1 07 |
| J. J. Manee | 658 | Raritan Bay | .4 | Mar. 11, 1890 | 10 |
| J. J. Manee | 64 | Raritan Bay | 4.0 | Mar. 11, 1890 | 1 00 |
| J. I. Merrell | 460 | Raritan Bay | 2.4 | Feb. 11, 1890 | 60 |
| J. I. Merrell | 474 | Raritan Bay | 4.5 | Feb. 11, 1890 | 1 13 |
| J. I. Merrell | 475 | Raritan Bay | 7.5 | Feb. 11, 1890 | 1 88 |
| J. I. Merrell | 476 | Raritan Bay | 5.1 | Feb. 11, 1890 | 1 28 |
| J. I. Merrell | 477 | Raritan Bay | 12.5 | Feb. 11, 1890 | 3 12 |
| J. I. Merrell | 478 | Raritan Bay | 13.2 | Feb. 11, 1890 | 3 30 |
| Ackerly & Son Company | 480 | Raritan Bay | 4.6 | Feb. 11, 1890 | 1 15 |
| W. N. Manee | 452 | Raritan Bay | 2.3 | Feb. 11, 1890 | 58 |
| T. F. Colon | 448 | Raritan Bay | .9 | Feb. 11, 1890 | 23 |
| T. V. Decker | 444 | Raritan Bay | 6.3 | Feb. 11, 1890 | 1 58 |

| | | | | | |
|---|---|---|---|---|---|
| B. F. & H. E. Bush | 456 | Raritan Bay | 1.6 | Jan. 14, 1890 | 40 |
| B. F. & H. E. Bush | 468 | Raritan Bay | 5.3 | Jan. 14, 1890 | 1 33 |
| Wm. Bush | 457 | Raritan Bay | 3.7 | Jan. 14, 1890 | 92 |
| J. W. Cole | 469 | Raritan Bay | 1.1 | Jan. 14, 1890 | 28 |
| Standard Oyster Company | 479 | Raritan Bay | 8.6 | June 10, 1890 | 2 15 |
| Sherman Decker | 465 | Raritan Bay | 5.1 | Feb. 11, 1890 | 1 28 |
| Sherman Decker | 466 | Raritan Bay | 4.0 | Feb. 11, 1890 | 1 00 |
| B. F. & H. E. Bush | 467 | Raritan Bay | 4.15 | Jan. 14, 1890 | 1 04 |
| J. E. Noe | 467 | Raritan Bay | 4.15 | Jan. 14, 1890 | 1 04 |
| J. I. Merrell | 446 | Raritan Bay | .5 | Mar. 11, 1890 | 12 |
| A. F. Merrell | 434 | Raritan Bay | 1.3 | Mar. 11, 1890 | 33 |
| Androvette & Thompson | 339 | Raritan Bay | 8.3 | Jan. 14, 1890 | 2 07 |
| Androvette & Thompson | 337 | Raritan Bay | 4.0 | Jan. 14, 1890 | 1 00 |
| Polworth & Elsworth | 436 | Raritan Bay | 4.3 | Mar. 11, 1890 | 1.07 |
| G. M. Still | 442 | Raritan Bay | 2.1 | Jan. 14, 1890 | 55 |
| G. M. Still | 440 | Raritan Bay | 1.4 | Jan. 14, 1890 | 35 |
| Elsworth Company | 487 | Raritan Bay | 21.2 | Mar. 11, 1890 | 5 30 |
| B. F. & H. E. Bush | 481 | Raritan Bay | 47.0 | Jan. 14, 1890 | 11 5 |
| A. F. Merrell | 485 | Raritan Bay | 10.2 | Jan. 14, 1890 | 2 55 |
| W. H. Houghwout | 486 | Raritan Bay | 6.2 | Jan. 14, 1890 | 1 55 |
| George Sharrott | 486 | Raritan Bay | 6.2 | Jan. 14, 1890 | 1 55 |
| A. F. Merrell | 484 | Raritan Bay | 3.3 | Jan. 14, 1890 | 85 |
| A. W. Sharrott | 488 | Raritan Bay | 4.5 | Jan. 14, 1890 | 1 12 |
| Standard Oyster Company | 493 | Raritan Bay | 9.8 | Oct. 14, 1890 | 2 45 |
| Standard Oyster Company | 492 | Raritan Bay | 5.9 | Oct. 14, 1890 | 1 48 |
| G. P. Wright & Company | 491 | Raritan Bay | 1.5 | Oct. 14, 1890 | 38 |
| Sealshipt Oyster System | 490 | Raritan Bay | 9.8 | Oct. 14, 1890 | 2 45 |
| Standard Oyster Company | 483 | Raritan Bay | 2.4 | Oct. 14, 1890 | 60 |
| Elsworth Company | 495 | Raritan Bay | 12.9 | Oct. 14, 1890 | 3 23 |
| A. F. Merrell | 494 | Raritan Bay | 5.1 | Oct. 14, 1890 | 1 28 |
| Elsworth Company | 496 | Raritan Bay | 6.1 | Oct. 14, 1890 | 1 52 |
| Elsworth Company | 497 | Raritan Bay | 3.4 | Oct. 14, 1890 | 85 |
| Sealshipt Oyster System | 498 | Raritan Bay | 9.5 | Aug. 14, 1890 | 2 37 |
| Standard Oyster Company | 499 | Raritan Bay | 5.8 | Oct. 14, 1890 | 1 45 |
| A. F. Merrell | 3 | Raritan Bay | 5.1 | Mar. 11, 1890 | 1 27 |
| A. F. Merrell | 276 | Raritan Bay | 22.8 | Jan. 14, 1890 | 5 70 |
| Jones & Burbank | 502 | Raritan Bay | 14.4 | Mar. 11, 1890 | 3 60 |
| Jones & Burbank | 500 | Raritan Bay | 40.0 | Mar. 11, 1890 | 10 00 |
| D. O. Noe & Son | 503 | Raritan Bay | 8.1 | Feb. 11, 1890 | 2 03 |
| Polworth & Elsworth | 511 | Raritan Bay | 13.5 | Mar. 11, 1890 | 3 37 |
| W. H. Houghwout | 512 | Raritan Bay | 2.5 | Mar. 11, 1890 | 63 |
| A. Martineau | 506 | Raritan Bay | 8.95 | Mar. 11, 1890 | 2 24 |
| A. W. Sharrott | 506 | Raritan Bay | 8.95 | Mar. 11, 1890 | 2 24 |
| Jones & Burbank | 510 | Raritan Bay | 3.3 | Mar. 11, 1890 | 83 |
| Elsworth Company | 501 | Raritan Bay | 8.6 | Feb. 11, 1890 | 2 15 |
| J. W. Cole | 507 | Raritan Bay | 4.9 | Feb. 11, 1890 | 1 22 |
| W. P. Burbank | 509 | Raritan Bay | 3.9 | Feb. 11, 1890 | 1 00 |
| A. F. Merrell | 508 | Raritan Bay | 6.0 | Sept. 30, 1892 | 1 50 |

## SCHEDULE "F" — *Continued*

| NAME. | Lot No. | Location. | Acres. | Franchise granted. | Annual tax. |
|---|---|---|---|---|---|
| Elsworth Company | 505 | Raritan Bay | 6.1 | Sept. 30, 1892 | $1 52 |
| Polworth & Elsworth | 513 | Raritan Bay | 2.3 | Mar. 11, 1890 | 58 |
| Joline Brothers | 60 | Raritan Bay | 4.8 | Feb. 11, 1890 | 1 20 |
| T. S. Merrell | 529 | Raritan Bay | 16.1 | Mar. 11, 1890 | 4 03 |
| T. S. Merrell | 527 | Raritan Bay | 5.1 | Mar. 11, 1890 | 1 28 |
| W. Manee, Sr | 536 | Raritan Bay | 1.7 | Feb. 11, 1890 | 43 |
| Elsworth Company | 534 | Raritan Bay | 3.1 | Feb. 11, 1890 | 78 |
| T. S. Merrell | 525 | Raritan Bay | 4.1 | Mar. 11, 1890 | 1 03 |
| T. S. Merrell | 523 | Raritan Bay | .9 | Mar. 11, 1890 | 22 |
| G. W. Sanbeg | 522 | Raritan Bay | 4.2 | Mar. 11, 1890 | 1 05 |
| Elsworth Company | 554 | Raritan Bay | 6.1 | Feb. 11, 1890 | 1 52 |
| Nelson Jacklin | 546 | Raritan Bay | 3.9 | Feb. 11, 1890 | 98 |
| Nelson Jacklin | 556 | Raritan Bay | 2.0 | Feb. 11, 1890 | 50 |
| Elsworth Company | 556 | Rariten Bay | 2.0 | Feb. 11, 1890 | 50 |
| B. Joline | 290 | Raliten Bay | 3.0 | April 1, 1890 | 75 |
| Polworth & Elsworth | 438 | Raritan Bay | 8.0 | Mar. 11, 1890 | 2 00 |
| W. S. Androvette | 565 | Raritan Bay | 2.5 | Mar. 11, 1890 | 62 |
| W. S. Androvette | 551 | Raritan Bay | 3.5 | Mar. 11, 1890 | 89 |
| Elsworth Company | 557 | Raritan Bay | 13.9 | Mar. 11, 1890 | 3 47 |
| Elsworth Company | 559 | Raritan Bay | 5.4 | Mar. 11, 1890 | 1 35 |
| W. S. Androvette | 561 | Raritan Bay | 1.8 | Mar. 11, 1890 | 45 |
| W. S. Androvette | 563 | Raritan Bay | 2.5 | Mar. 11, 1890 | 62 |
| W. S. Androvette | 549 | Raritan Bay | 2.6 | Mar. 11, 1890 | 65 |
| W. S. Androvette | 622 | Raritan Bay | 16.9 | Mar. 11, 1890 | 4 23 |
| Elsworth Company | 636 | Raritan Bay | 6.8 | Mar. 11, 1890 | 1 70 |
| C. Walle | 626 | Raritan Bay | 1.5 | Mar. 11, 1890 | 38 |
| George Newbury | 635 | Raritan Bay | 1.2 | Feb. 11, 1890 | 30 |
| A. F. Merrell | 428 | Raritan Bay | 5.9 | Mar. 11, 1990 | 1 48 |
| Elsworth Company | 637 | Raritan Bay | 1.7 | Feb. 11, 1890 | 43 |
| Elsworth Company | 639 | Raritan Bay | 5.8 | Feb. 11, 1890 | 1 45 |
| Elsworth Company | 643 | Raritan Bay | 6.8 | Feb. 11, 1890 | 1 70 |
| Elsworth Company | 641 | Raritan Bay | 4.2 | Feb. 11, 1890 | 1 05 |
| Elsworth Company | 645 | Rartian Bay | 5.8 | Feb. 11, 1890 | 1 45 |
| Elsworth Company | 647 | Raritan Bay | 4.7 | Feb. 11, 1890 | 1 [illegible] |
| Elsworth Company | 667 | Raritan Bay | 3.4 | Feb. 11, 1890 | 85 |
| Elsworth Company | 673 | Raritan Bay | 1.8 | Feb. 11, 1890 | 45 |
| G. T. Androvette | 547 | Raritan Bay | 1.7 | Feb. 11, 1890 | 42 |
| Androvette & Thompson | 568 | Raritan Bay | 2.1 | Feb. 11, 1980 | 53 |
| E. T. Butler | 553 | Raritan Bay | 2.3 | Feb. 11, 1911 | 57 |

| | | | | | |
|---|---|---|---|---|---|
| Elsworth Company | 555 | Raritan Bay | 9.2 | Feb. 11, 1890 | 2 30 |
| T. L. Jobes | 548 | Raritan Bay | 3.5 | Feb. 11, 1890 | 88 |
| T. L. Jobes | 550 | Raritan Bay | 5.3 | Feb. 11, 1890 | 1 23 |
| Polworth & Elsworth | 558 | Raritan Bay | 5.5 | Feb. 11, 1890 | 1 38 |
| Elsworth Company | 629 | Raritan Bay | 1.4 | Feb. 11, 1890 | 35 |
| Elsworth Company | 631 | Raritan Bay | 1.5 | Feb. 11, 1890 | 38 |
| Elsworth Company | 625 | Raritan Bay | 2.6 | Feb. 11, 1890 | 65 |
| Elsworth Company | 619 | Raritan Bay | 11.8 | Feb. 11, 1890 | 2 95 |
| Elsworth Company | 633 | Raritan Bay | 2.0 | Feb. 11, 1890 | 50 |
| Henderson Journeay | 595 | Raritan Bay | 1.5 | Feb. 11, 1890 | 38 |
| Henderson Journeay | 597 | Raritan Bay | 2.7 | Feb. 11, 1890 | 67 |
| T. L. Jobes | 579 | Raritan Bay | 1.4 | Feb. 11, 1890 | 35 |
| T. L. Jobes | 578 | Raritan Bay | 1.2 | Feb. 11, 1890 | 30 |
| Elsworth Company | 575 | Raritan Bay | 9.6 | Feb. 11, 1890 | 2 40 |
| T. L. Jobes | 581 | Raritan Bay | 10.4 | Feb. 11, 1890 | 2 53 |
| G. H. Manee | 542 | Raritan Bay | 1.3 | Feb. 11, 1890 | 33 |
| W. Manee, Sr. | 544 | Raritan Bay | 2.1 | Feb. 11, 1890 | 53 |
| Elsworth Company | 507 | Raritan Bay | 5.6 | Feb. 11, 1890 | 1 40 |
| Elsworth Company | 517 | Raritan Bay | 2.6 | Feb. 11, 1890 | 65 |
| G. E. Forrester | 515 | Raritan Bay | 1.2 | Feb. 11, 1890 | 30 |
| H. S. Van Wagoner | 567 | Raritan Bay | 4.0 | Feb. 11, 1890 | 1 00 |
| W. W. LaForge | 592 | Raritan Bay | 1.6 | Feb. 11, 1890 | 40 |
| Elsworth Company | 362 | Raritan Bay | 1.1 | Mar. 11, 1890 | 27 |
| Androvette & Thompson | 236 | Raritan Bay | 31.9 | Oct. 14, 1890 | 7 98 |
| Frazer & Houghwout | 218 | Raritan Bay | 7.0 | Oct. 14, 1890 | 1 75 |
| D. Joline | 330 | Raritan Bay | 3.6 | Mar. 11, 1890 | 90 |
| D. Joline | 392 | Raritan Bay | 4.9 | Mar. 11, 1890 | 1 23 |
| Elsworth Company | 169 | Raritan Bay | 1.6 | May 14, 1889 | 40 |
| A. S. Joline | 242 | Raritan Bay | 6.3 | Mar. 11, 1890 | 1 58 |
| E. T. Butler | 388 | Raritan Bay | 2.4 | Mar. 11, 1890 | 60 |
| A. C. Sofield | 46 | Raritan Bay | .7 | Mar. 11, 1890 | 17 |
| A. C. Sofield | 248 | Raritan Bay | .8 | Mar. 11, 1890 | 20 |
| D. W. Van Name | 55 | Raritan Bay | 5.2 | Mar. 11, 1890 | 1 30 |
| Elsworth Company | 215 | Raritan Bay | 12.7 | Mar. 11, 1890 | 3 19 |
| Elsworth Company | 638 | Raritan Bay | 5.3 | Mar. 11, 1890 | 1 32 |
| Polworth & Elsworth | 628 | Raritan Bay | 1.1 | Mar. 11, 1890 | 27 |
| Elsworth Company | 634 | Raritan Bay | 2.5 | Mar. 11, 1890 | 62 |
| Elsworth Company | 630 | Raritan Bay | 1.7 | Mar. 11, 1890 | 42 |
| Elsworth Company | 632 | Raritan Bay | 24.7 | Mar. 11, 1890 | 6 17 |
| Wesley Thompson | 642 | Raritan Bay | 3.7 | Mar. 11, 1890 | 93 |
| Wesley Thompson | 640 | Raritan Bay | 2.1 | Mar. 11, 1890 | 52 |
| Elsworth Company | 621 | Raritan Bay | 4.2 | Mar. 11, 1890 | 1 05 |
| C. Walle | 396 | Raritan Bay | 1.1 | Mar. 11, 1890 | 28 |
| F. T. Sprague | 413 | Raritan Bay | 2.4 | Mar. 11, 1890 | 50 |
| M. T. Merrell | 397 | Raritan Bay | 4.8 | Mar. 11, 1890 | 1 20 |
| Elsworth Company | 308 | Raritan Bay | 2.2 | Mar. 11, 1890 | 55 |
| Elsworth Company | 397 | Raritan Bay | 4.1 | May 6, 1890 | 1 02 |
| Elsworth Company | 313 | Raritan Bay | 14.1 | May 6, 1890 | 3 52 |

## SCHEDULE "F" — *Continued*

| NAME. | Lot No. | Location. | Acres. | Franchise granted. | Annual tax. |
|---|---|---|---|---|---|
| Elmer Price | 250 | Raritan Bay | 1.5 | Mar. 11, 1890 | $0 38 |
| A. F. Merrell | 266 | Raritan Bay | 3.0 | Mar. 11, 1890 | 75 |
| Sealshipt Oyster System | 463 | Raritan Bay | 6.6 | Mar. 11, 1890 | 1 65 |
| T. S. Merrell | 533 | Raritan Bay | 5.4 | Mar. 11, 1890 | 1 35 |
| T. S. Merrell | 535 | Raritan Bay | 3.7 | Mar. 11, 1890 | 93 |
| Androvette & Thompson | 570 | Raritan Bay | 2.6 | Mar. 11, 1890 | 65 |
| W. N. Manee | 420 | Raritan Bay | 3.3 | Mar. 11, 1890 | 82 |
| DeHart & Housman | 335 | Raritan Bay | 1.3 | Mar. 11, 1890 | 33 |
| Elsworth Company | 360 | Raritan Bay | 6.5 | Mar. 11, 1890 | 1 63 |
| Polworth & Elsworth | 235 | Raritan Bay | 6.4 | Mar. 11, 1890 | 1 60 |
| Polworth & Elsworth | 237 | Raritan Bay | 14.4 | Mar. 11, 1890 | 3 60 |
| Polworth & Elsworth | 239 | Raritan Bay | 20.5 | Mar. 11, 1890 | 5 12 |
| A. F. Merrell | 160 | Raritan Bay | 11.1 | Mar. 11, 1890 | 2 78 |
| A. F. Merrell | 162 | Raritan Bay | 17.5 | Mar. 11, 1890 | 4 38 |
| J. I. Merrell | 524 | Raritan Bay | 8.6 | Mar. 11, 1890 | 2 15 |
| E. M. Post | 526 | Raritan Bay | 4.0 | Mar. 11, 1890 | 1 00 |
| Elsworth Company | 617 | Raritan Bay | 11.7 | Mar. 11, 1890 | 2 19 |
| Thomas Silk | 613 | Raritan Bay | .9 | Mar. 11, 1890 | 23 |
| Elsworth Company | 615 | Raritan Bay | 14.9 | Mar. 11, 1890 | 3 73 |
| J. W. C. Englebrecht | 599 | Raritan Bay | .6 | Mar. 11, 1890 | 1 15 |
| J. W. C. Englebrecht | 589 | Raritan Bay | 3.7 | Mar. 11, 1890 | 93 |
| J. W. C. Englebrecht | 591 | Raritan Bay | 2.4 | Mar. 11, 1890 | 60 |
| Elsworth Company | 602 | Raritan Bay | 1.7 | Mar. 11, 1890 | 43 |
| David Johnson | 604 | Raritan Bay | 1.4 | Mar. 11, 1890 | 35 |
| David Johnson | 606 | Raritan Bay | 2.2 | Mar. 11, 1890 | 55 |
| David Johnson | 608 | Raritan Bay | 2.6 | Mar. 11, 1890 | 65 |
| David Johnson | 610 | Raritan Bay | 1.1 | Mar. 11, 1890 | 28 |
| Standard Oyster Company | 252 | Raritan Bay | 20.0 | Mar. 11, 1890 | 5 00 |
| Elsworth Company | 254 | Raritan Bay | 11.1 | Mar. 11, 1890 | 2 78 |
| Standard Oyster Company | 256 | Raritan Bay | 25.3 | Mar. 11, 1890 | 6 32 |
| Henry Marshall | 653 | Raritan Bay | 7.9 | Mar. 11, 1890 | 1 97 |
| Polworth & Elsworth | 657 | Raritan Bay | 1.8 | Mar. 11, 1890 | 45 |
| Polworth & Elsworth | 659 | Raritan Bay | 4.0 | Mar. 11, 1890 | 1 00 |
| T. W. Holbert | 603 | Raritan Bay | 2.5 | Mar. 11, 1890 | 63 |
| T. W. Holbert | 605 | Raritan Bay | 1.8 | Mar. 11, 1890 | 45 |
| T. W. Holbert | 607 | Raritan Bay | 7.3 | Mar. 11, 1890 | 1 83 |
| Polworth & Elsworth | 133 | Raritan Bay | 1.9 | May 6, 1890 | 48 |
| E. M. Post | 520 | Raritan Bay | 6.5 | Mar. 11, 1890 | 1 63 |
| E. M. Post | 516 | Raritan Bay | 7.5 | Mar. 11, 1890 | 1 80 |

| | | | | | |
|---|---|---|---|---|---|
| E. M. Post | 514 | Raritan Bay | 3.1 | Mar. 11, 1890 | 78 |
| Elsworth Company | 600 | Raritan Bay | 3.8 | Mar. 11, 1890 | 95 |
| W. W. LaForge | 596 | Raritan Bay | 3.9 | Mar. 11, 1890 | 97 |
| W. W. LaForge | 594 | Raritan Bay | 1.5 | Mar. 11, 1890 | 37 |
| J. E. LaForge | 366 | Raritan Bay | 2.1 | Mar. 11, 1890 | 53 |
| Fletcher Decker | 128B | Raritan Bay | 2.8 | Mar. 11, 1890 | 70 |
| Elmer Price | 244 | Raritan Bay | .8 | Mar. 11, 1890 | 20 |
| A. F. Merrell | 159 | Raritan Bay | 12.3 | Mra. 11, 1890 | 3 08 |
| A. F. Merrell | 430 | Raritan Bay | 3.4 | Mar. 11, 1890 | 85 |
| A. F. Merrell | 278 | Raritan Bay | 4.9 | Mar. 11, 1890 | 1 23 |
| Theodore Johnson | 426 | Raritan Bay | .7 | Mar. 11, 1890 | 18 |
| Elsworth Company | 618 | Raritan Bay | 1.7 | Mar. 11, 1890 | 42 |
| Elsworth Company | 623 | Raritan Bay | 3.9 | Mar. 11, 1890 | 97 |
| Elsworth Company | 665 | Raritan Bay | 4.9 | Mar. 11, 1890 | 1 23 |
| Charles Bogardus | 655 | Raritan Bay | 7.4 | Mar. 11, 1890 | 1 85 |
| W. W. LaForge | 142B | Raritan Bay | 3.5 | Mar. 11, 1890 | 87 |
| E. P. Manee | 113 | Raritan Bay | 8.6 | Mar. 11, 1890 | 2 15 |
| W. N. Manee | 68 | Raritan Bay | .8 | Mar. 11, 1890 | 20 |
| G. J. Jennings | 128A | Raritan Bay | 2.4 | Mar. 11, 1890 | 60 |
| John Marshall | 649 | Raritan Bay | 3.8 | Mar. 11, 1890 | 95 |
| John Marshall | 651 | Raritan Bay | 3.6 | Mar. 11, 1890 | 90 |
| John Marshall | 661 | Raritan Bay | 1.9 | Mar. 11, 1890 | 47 |
| John Marshall | 671 | Raritan Bay | 4.95 | Mar. 11, 1890 | 1 24 |
| C. E. Palmer & Sons | 671 | Raritan Bay | 4.95 | Mar. 11, 1890 | 1 23 |
| Elsworth Company | 650 | Raritan Bay | 11.9 | Mar. 11, 1890 | 2 98 |
| Andrew Anderson | 424 | Raritan Bay | 2.8 | Mar. 11, 1890 | 70 |
| Elsworth Company | 393 | Raritan Bay | 3.4 | Mar. 11, 1890 | 85 |
| Alfred BuBois | 415 | Raritan Bay | 2.3 | Mar. 11, 1890 | 58 |
| C. Lissenden | 172 | Raritan Bay | 5.0 | Mar. 11, 1890 | 1 25 |
| Elsworth Company | 172 | Raritan Bay | 10.0 | Mar. 11, 1890 | 2 50 |
| Standard Oyster Company | 172 | Raritan Bay | 9.3 | Mar. 11, 1890 | 2 33 |
| George Marshall | 267 | Raritan Bay | 6.8 | Mar. 11, 1890 | 1 70 |
| Elsworth Company | 364 | Raritan Bay | 1.0 | Mar. 11, 1890 | 25 |
| L. W. Bedell | 213 | Raritan Bay | 1.6 | Mar. 11, 1890 | 40 |
| G. M. Still | 660 | Raritan Bay | 2.1 | Mar. 11, 1890 | 53 |
| William Cooley | 277 | Raritan Bay | 5.3 | Mar. 11, 1890 | 1 33 |
| E. T. Butler | 283 | Raritan Bay | 2.2 | Mar. 11, 1890 | 55 |
| Forrester & Hoag | 669 | Raritan Bay | 2.55 | Mar. 11, 1890 | 64 |
| Mersereau & Lewis | 669 | Raritan Bay | 2.55 | Mar. 11, 1890 | 63 |
| T. S. Merrell | 222 | Raritan Bay | 14.6 | Oct. 14, 1890 | 3 70 |
| W. N. Manee | 341 | Raritan Bay | 2.2 | Oct. 14, 1890 | 55 |
| Joline Bros | 343 | Raritan Bay | 4.1 | Oct. 14, 1890 | 1 02 |
| Standard Oyster Company | 654 | Raritan Bay | 8.2 | Oct. 14, 1890 | 2 05 |
| D. O. Noe & Son | 27 | Raritan Bay | 1.4 | Oct. 14, 1890 | 35 |
| D. O. Noe & Son | 32 | Raritan Bay | .7 | Oct. 14, 1890 | 17 |
| D. O. Noe & Son | 43 | Raritan Bay | 3.0 | Oct. 14, 1890 | 75 |
| D. O. Noe & Son | 151 | Raritan Bay | .7 | Oct. 14, 1890 | 17 |
| Elsworth Company | 346 | Raritan Bay | 11.7 | June 10, 1890 | 2 93 |

## SCHEDULE "F" — *Continued*

| NAME. | Lot No. | Location. | Acres. | Franchise granted. | Annual tax. |
|---|---|---|---|---|---|
| Sherman Decker | 668 | Raritan Bay | 4.4 | May 6, 1890 | $1 10 |
| C. C. & C. M. Decker | 666 | Raritan Bay | 1.4 | May 6, 1890 | 35 |
| C. C. & C. M. Decker | 670 | Raritan Bay | 4.7 | May 6, 1890 | 1 18 |
| W. W. LaForge | 123 | Raritan Bay | 3.4 | Aug. 9, 1892 | 85 |
| Elsworth Company | 173 | Raritan Bay | 76.0 | Dec. 29, 1892 | 19 00 |
| Elsworth Company | 165 | Raritan Bay | 28.2 | May 14, 1889 | 7 05 |
| Elsworth Company | 166 | Raritan Bay | 5.9 | Feb. 14, 1893 | 1 48 |
| Standard Oyster Company | 40 | Raritan Bay | .4 | Feb. 14, 1893 | 10 |
| Elsworth Company | 672 | Raritan Bay | 1.1 | June 10, 1890 | 28 |
| D. O. Noe & Son | 150 | Raritan Bay | .7 | Oct. 18, 1890 | 18 |
| Elsworth Company | 142A | Raritan Bay | 22.1 | May 6, 1890 | 5 52 |
| Abram Manee | 461 | Raritan Bay | 2.0 | May 12, 1891 | 50 |
| Elsworth Company | 648 | Raritan Bay | 5.6 | May 12, 1891 | 1 40 |
| A. S. Joline | 435 | Raritan Bay | 5.3 | Oct. 14, 1890 | 1 32 |
| Theodore Johnson | 35 | Raritan Bay | .8 | Dec. 8, 1891 | 20 |
| Polworth & Elsworth | 251 | Raritan Bay | 2.6 | May 6, 1890 | 65 |
| Elmer Price | 272 | Raritan Bay | 2.0 | May 6, 1890 | 50 |
| Elsworth Company | 443 | Raritan Bay | 4.4 | May 6, 1890 | 1 10 |
| Henry DeHart | 419 | Raritan Bay | 16.1 | May 6, 1890 | 4 03 |
| Henry DeHart | 421 | Raritan Bay | 7.1 | May 6, 1890 | 1 77 |
| A. F. Merrell | 674 | Raritan Bay | 2.8 | June 10, 1890 | 70 |
| Mrs. Charles Ziegler | 422 | Raritan Bay | 2.9 | June 10, 1890 | 73 |
| G. M. Still | 521 | Raritan Bay | 2.7 | June 10, 1890 | 67 |
| A. Latourette | 433 | Raritan Bay | 13.0 | May 14, 1889 | 3 25 |
| A. S. Joline | 675 | Raritan Bay | 5.2 | May 14, 1889 | 1 30 |
| Standard Oyster Company | 676 | Raritan Bay | 167.0 | Feb. 14, 1891 | 41 75 |
| Lillie Merrell | 677 | Raritan Bay | 2.0 | June 10, 1890 | 50 |
| Elsworth Company | 680 | Raritan Bay | 1.3 | June 10, 1890 | 32 |
| Sherman Decker | 681 | Raritan Bay | 3.3 | June 10, 1890 | 83 |
| D. Burbank | 386 | Raritan Bay | 5.3 | May 12, 1891 | 1 33 |
| C. Walle | 679 | Raritan Bay | 4.7 | June 10, 1890 | 1 18 |
| W. N. Manee | 67 | Raritan Bay | 5.3 | June 10, 1890 | 1 32 |
| E. B. Lewis | 181 | Raritan Bay | 5.0 | Aug. 12, 1890 | 1 25 |
| E. B. Lewis | 682 | Raritan Bay | .8 | Aug. 12, 1890 | 20 |
| Nils Pedersen | 432 | Raritan Bay | 3.4 | Jan. 13, 1891 | 85 |
| N. S. Ackerly & Sons | Several. | Long Island Sound | 40.0 | Jan. 27, 1891 | 10 00 |
| S. Leroy Ackerly | C. | Long Island Sound | 46.8 | Feb. 10, 1891 | 11 70 |
| A. W. Sharrott | 683 | Raritan Bay | 3.6 | Jan. 27, 1891 | 90 |
| J. S. Sleight | 715 | Raritan Bay | 5.8 | Jan. 27, 1891 | 1 45 |

| | | | | | |
|---|---|---|---|---|---|
| W. H. Houghwout | 694 | Raritan Bay | 42.2 | Jan. 27, 1891 | 10 55 |
| Croel Price | 710 | Raritan Bay | 2.0 | Feb. 10, 1891 | 50 |
| Croel Price | 711 | Raritan Bay | .5 | Feb. 10, 1891 | 15 |
| J. E. Noe | 713 | Raritan Bay | 2.0 | Feb. 10, 1891 | 50 |
| J. C. Wyant | 765 | Raritan Bay | .8 | Feb. 10, 1891 | 20 |
| Almer Decker | 724 | Raritan Bay | 3.2 | Feb. 10, 1891 | 80 |
| Elsworth Company | 721 | Raritan Bay | 7.6 | Feb. 10, 1891 | 1 90 |
| Almer Decker | 725 | Raritan Bay | 3.8 | May 12, 1891 | 95 |
| Elsworth Company | 701 | Raritan Bay | 6.7 | Mar. 12, 1891 | 1 67 |
| Sherman Decker | 687 | Raritan Bay | 6.0 | Mar. 18, 1891 | 1 50 |
| Jones & Burbank | 695 | Raritan Bay | 19.6 | Mar. 12, 1891 | 4 90 |
| Daniel Burbank | 696 | Raritan Bay | 19.9 | Mar. 12, 1891 | 4 97 |
| David Decker | 686 | Raritan Bay | 6.6 | Mar. 12, 1891 | 1 65 |
| William Buchanan | 690 | Raritan Bay | 2.5 | Mar. 12, 1891 | 63 |
| T. S. Merrell | 693 | Raritan Bay | 2.4 | Mar. 12, 1891 | 60 |
| Elmer Price | 712 | Raritan Bay | 1.4 | Mar. 12, 1891 | 35 |
| J. I. Merrell | 833 | Raritan Bay | 5.2 | Mar. 12, 1891 | 1 30 |
| D. O. Noe | 835 | Raritan Bay | 9.6 | Mar. 12, 1891 | 2 40 |
| D. W. VanName | 697 | Raritan Bay | 1.3 | Mar. 12, 1891 | 32 |
| Elsworth Company | 729 | Raritan Bay | 1.6 | Mar. 18, 1891 | 40 |
| J. Vanderveer | Several. | Long Island Sound | 120.6 | Mar. 18, 1891 | 30 00 |
| J. M. Belford | Several. | Long Island Sound | 60.0 | Mar. 18, 1891 | 15 00 |
| S. Leroy Ackerly | Several. | Long Island Sound | 130.0 | Mar. 18, 1891 | 32 50 |
| J. M. Belford | Several. | Long Island Sound | 120.0 | Mar. 18, 1891 | 30 00 |
| N. S. Ackerly & Sons | Several. | Long Island Sound | 30.0 | Mar. 18, 1891 | 7 50 |
| Theodore Johnson | 731 | Raritan Bay | .9 | Mar. 18, 1891 | 22 |
| Elsworth Company | 730 | Raritan Bay | 2.4 | Mar. 18, 1891 | 60 |
| Peter Cannon | 723 | Raritan Bay | .2 | May 12, 1891 | 05 |
| A. M. Cannon | 735 | Raritan Bay | 2.2 | May 12, 1891 | 55 |
| Croel Price | 738 | Raritan Bay | 3.0 | July 14, 1891 | 75 |
| A. S. Joline | 745 | Raritan Bav | 10.0 | Aug. 30, 1892 | 2 50 |
| C. B. Sprague | 749 | Raritan Bay | 1.9 | July 14, 1891 | 48 |
| C. B. Sprague | 753 | Raritan Bay | 1.4 | July 14, 1891 | 35 |
| G. E. Sprague | 751 | Raritan Bay | 1.0 | July 14, 1891 | 25 |
| Elsworth Company | 755 | Raritan Bay | 1.6 | July 14, 1891 | 40 |
| Colon & Crocheron | 779 | Raritan Bay | 26.4 | July 14, 1891 | 6 60 |
| Nelson Jacklin | 744 | Raritan Bay | 1.3 | July 14, 1891 | 35 |
| Elsworth Company | 786 | Raritan Bay | 1.8 | July 14, 1891 | 45 |
| Elsworth Company | 785 | Raritan Bay | 37.8 | July 14, 1891 | 9 45 |
| Frazer & Houghwout | 783 | Raritan Bay | 40.0 | July 14, 1891 | 10 00 |
| W. N. Manee | 418 | Raritan Bay | 4.3 | July 14, 1891 | 1 07 |
| D. B. Colon | 418½ | Raritan Bay | 1.7 | July 14, 1891 | 43 |
| LaForge & Thompson | 422½ | Raritan Bay | 2.9 | July 14, 1891 | 73 |
| Elsworth Company | 755 | Raritan Bay | 2.4 | July 14, 1891 | 60 |
| Elsworth Company | 787 | Raritan Bay | 10.0 | July 14, 1891 | 2 50 |
| Sealshipt Oyster System | 787 | Raritan Bay | 6.6 | July 14, 1891 | 1 65 |
| Androvette & Thompson | 789 | Raritan Bay | 10.2 | July 14, 1891 | 2 55 |
| Forrester & Hoag | 789 | Raritan Bay | 10.2 | July 14, 1891 | 3 55 |

## SCHEDULE "F"—*Continued*

| NAME. | Lot No. | Location. | Acres. | Franchise granted. | Annual tax. |
|---|---|---|---|---|---|
| Sherman Decker | 778 | Raritan Bay | 3.5 | July 14, 1891 | $0 88 |
| Sherman Decker | 700 | Raritan Bay | 10.1 | July 14, 1891 | 2 52 |
| Elsworth Company | 742 | Raritan Bay | 1.5 | June 17, 1891 | 38 |
| John Marshall | 744 | Raritan Bay | 4.0 | July 14, 1891 | 1 00 |
| John Marshall | 746 | Raritan Bay | 1.6 | July 14, 1891 | 30 |
| John Marshall | 750 | Raritan Bay | 2.8 | July 14, 1891 | 70 |
| Elsworth Company | 758 | Raritan Bay | 3.1 | July 14, 1891 | 77 |
| Elsworth Company | 782 | Raritan Bay | 1.8 | July 14, 1891 | 45 |
| Elsworth Company | 788 | Raritan Bay | 4.6 | July 14, 1891 | 1 15 |
| Wesley Thompson | 776 | Raritan Bay | 1.8 | July 14, 1891 | 45 |
| Daniel Green | 798 | Raritan Bay | .6 | July 14, 1891 | 15 |
| Daniel Green | 800 | Raritan Bay | 2.6 | July 14, 1891 | 65 |
| G. M. Still | 805 | Raritan Bay | 10.6 | July 14, 1891 | 2 65 |
| A. & W. Manee | 806 | Raritan Bay | 3.4 | July 14, 1891 | 85 |
| Nelson Jacklin | 790 | Raritan Bay | 1.0 | July 14, 1891 | 25 |
| Androvette & Thompson | 807 | Raritan Bay | 2.6 | July 14, 1891 | 65 |
| Abram Manee | 808 | Raritan Bay | 4.4 | July 14, 1891 | 1 10 |
| Abram Manee | 815 | Raritan Bay | 4.8 | July 14, 1891 | 1 20 |
| Abram Manee | 817 | Raritan Bay | 2.0 | July 14, 1891 | 50 |
| A. & W. Manee | 814 | Raritan Bay | 6.6 | July 14, 1891 | 1 65 |
| A. & W. Manee | 816 | Raritan Bay | 3.0 | July 14, 1891 | 75 |
| A. & W. Manee | 819 | Raritan Bay | 4.4 | July 14, 1891 | 1 10 |
| Elsworth Company | 809 | Raritan Bay | 1.4 | July 14, 1891 | 35 |
| Elsworth Company | 810 | Raritan Bay | 1.4 | July 14, 1891 | 35 |
| Elsworth Company | 811 | Raritan Bay | 4.8 | July 14, 1891 | 1 20 |
| Colon & Crocheron | 408 | Raritan Bay | 5.0 | July 14, 1891 | 1 25 |
| David Simonson | 822 | Raritan Bay | 2.0 | July 14, 1891 | 70 |
| G. M. Still | 823 | Raritan Bay | 2.4 | July 14, 1891 | 60 |
| David Simonson | 825 | Raritan Bay | 1.4 | July 14, 1891 | 35 |
| Charles Bedell | 821 | Raritan Bay | 1.8 | July 14, 1891 | 45 |
| Charles Bedell | 820 | Raritan Bay | 3.2 | July 14, 1891 | 80 |
| G. M. Still | 824 | Raritan Bay | 3.2 | July 14, 1891 | 80 |
| Elsworth Company | 831 | Raritan Bay | 3.2 | July 14, 1891 | 80 |
| A. & W. Manee | 832 | Raritan Bay | 1.1 | July 14, 1891 | 28 |
| Charles Bedell | 767 | Raritan Bay | 3.3 | July 14, 1891 | 83 |
| A. W. Woglam | 769 | Raritan Bay | 1.7 | July 14, 1891 | 42 |
| A. W. Woglam | 777 | Raritan Bay | 1.9 | July 14, 1891 | 47 |
| A. M. Kemp | 70L | Long Island Sound | 11.8 | Sept. 8, 1891 | 2 95 |
| J. H. Vanderveer | Several. | Long Island Sound | 11.0 | Oct. 13, 1891 | 27 50 |

| | | | | | |
|---|---|---|---|---|---|
| Standard Oyster Company | 856 | Raritan Bay | 5.8 | Dec. 8, 1891 | 1 45 |
| Charles E. Palmer | Section D. | Long Island Sound | 125.0 | Dec. 8, 1891 | 31 25 |
| Charles E. Palmer | Section A. | Long Island Sound | 250.0 | Dec. 8, 1891 | 62 50 |
| Glenwood Oyster Company | Several. | Long Island Sound | 240.0 | Dec. 8, 1891 | 60 00 |
| Stirling Oyster Company | Several. | Long Island Sound | 210.0 | Dec. 8, 1891 | 52 50 |
| S. C., D. A. & M. L. Joline | 837 | Raritan Bay | 23.6 | Jan. 12, 1892 | 5 90 |
| Charles Bedell | 770 | Raritan Bay | 1.4 | Jan. 12, 1892 | 35 |
| G. Marshall & C. Bedell | 772 | Raritan Bay | 2.3 | Jan. 12, 1892 | 58 |
| Elsworth Company | 692 | Raritan Bay | 17.0 | Jan. 12, 1892 | 4 25 |
| W. F. Hoyt | Several. | Long Island Sound | 34.2 | Jan. 12, 1892 | 8 55 |
| C. H. Vroom | Several. | Long Island Sound | 85.8 | Jan. 12, 1892 | 21 45 |
| Forrester & Hoag | 801 | Raritan Bay | 3.6 | Jan. 12, 1892 | 90 |
| C. Walle | 394 | Raritan Bay | 2.2 | Feb. 11, 1892 | 55 |
| T. S. Merrell | 844 | Raritan Bay | 3.0 | Feb. 11, 1892 | 75 |
| C. V. Decker | 851 | Raritan Bay | 7.8 | Feb. 11, 1892 | 1 95 |
| C. V. Decker | 853 | Raritan Bay | 7.2 | Feb. 11, 1892 | 1 80 |
| Elsworth Company | 855 | Raritan Bay | 17.7 | Feb. 11, 1892 | 4 42 |
| Elsworth Company | 842 | Raritan Bay | 8.2 | Feb. 11, 1892 | 2 05 |
| W. G. Porth | 843 | Raritan Bay | 4.6 | Feb. 11, 1892 | 1 15 |
| S. C., D. A. & M. L. Joline | 857 | Raritan Bay | 1.8 | Feb. 11, 1892 | 45 |
| A. F. Merrell | 743 | Raritan Bay | .6 | Feb. 11, 1892 | 15 |
| Nelson Jacklin | 828 | Raritan Bay | 2.0 | Mar. 25, 1892 | 50 |
| Frazer & Houghwout | 504 | Raritan Bay | 9.5 | Aug. 9, 1892 | 2 38 |
| John I. Merrell | 504 | Raritan Bay | 9.5 | Aug. 9, 1892 | 2 37 |
| C. M. Decker | 734 | Raritan Bay | 1.5 | April 12, 1892 | 37 |
| G. S. Burbank | 858 | Raritan Bay | 12.0 | June 8, 1892 | 3 00 |
| Daniel Burbank | 862 | Raritan Bay | 24.6 | Aug. 9, 1892 | 6 15 |
| C. E., C. F. & C. E. Palmer | 859 | Raritan Bay | 64.8 | Aug. 9, 1892 | 16 20 |
| B. F. & H. E. Bush | 861 | Raritan Bay | 25.2 | Aug. 9, 1892 | 6 30 |
| T. L. Jobes | 840 | Raritan Bay | 1.6 | Aug. 9, 1892 | 40 |
| Sealshipt Oyster System | Several. | Long Island Sound | 80.0 | Nov. 15, 1898 | 20 00 |
| Sealshipt Oyster System | Several. | Long Island Sound | 80.0 | Nov. 15, 1898 | 20 00 |
| Sealshipt Oyster Sytem | Several. | Long Island Sound | 80.0 | Nov. 15, 1898 | 20 00 |
| Sealshipt Oyster System | Several. | Long Island Sound | 150.0 | Nov. 15, 1898 | 37 50 |
| Sealshipt Oyster Sytsem | Several. | Long Island Sound | 240.0 | Nov. 15, 1898 | 60 00 |
| Sealshipt Oyster System | Several. | Long Island Sound | 70.0 | Nov. 15, 1898 | 17 50 |
| George W. Chauncey | Several. | Long Island Sound | 100.0 | Sept. 6, 1899 | 25 00 |
| N. S. Ackerly & Son Company | 85L | Long Island Sound | 51.2 | Mar. 27, 1900 | 12 80 |
| N. S. Ackerly & Son Company | 87L | Long Island Sound | 60.6 | Mar. 27, 1800 | 15 15 |
| N. S. Ackerly & Son Company | 86L | Long Island Sound | 109.5 | Mar. 27, 1900 | 27 30 |
| Sealshipt Oyster System | 88L | Long Island Sound | 128.2 | Mar. 27, 1900 | 32 05 |
| N. S. Ackerly & Son Company | Several. | Long Island Sound | 16.2 | April 18, 1900 | 4 05 |
| Andrew Radel | 98L | Long Island Sound | 104.0 | Sept. 11, 1900 | 26 00 |
| O. T. Fanning | 101L | Long Island Sound | 167.4 | Sept. 11, 1900 | 41 85 |
| C. P. Randall | 100L | Long Island Sound | 104.0 | Sept. 11, 1900 | 26 00 |
| Andrew Radel | 99L | Long Island Sound | 104.0 | Sept. 11, 1900 | 26 00 |
| Randall & Fanning | 102L | Long Island Sound | 200.0 | Nov. 13, 1900 | 50 00 |
| Frank Rogers | 103 | Long Island Sound | 29.8 | Aug. 13, 1901 | 7 45 |
| Purity Bluepoint Oyster Company | Several. | Long Island Sound | 240.0 | Dec. 29, 1892 | 60 00 |
| Andrew Radel | 73L | Long Island Sound | 104.6 | Sept. 30, 1892 | 26 15 |

## SCHEDULE "F"— *Concluded.*

| NAME. | Lot No. | Location. | Acres. | Franchise granted. | Annual tax. |
|---|---|---|---|---|---|
| H. F. Fordham | 73L | Long Island Sound | 69.0 | Sept. 30, 1892 | $17 25 |
| H. F. Fordham | 74L | Long Island Sound | 69.0 | Sept. 30, 1892 | 17 25 |
| Andrew Radel | 76L | Long Island Sound | 104.2 | Sept. 30, 1892 | 26 05 |
| Suwasset Oyster Company | 72L | Long Island Sound | 99.2 | Sept. 30, 1892 | 24 80 |
| Andrew Radel | 77L | Long Island Sound | 104.0 | Sept. 30, 1892 | 26 00 |
| W. C. Porth | 781 | Raritan Bay | 42.8 | Dec. 29, 1892 | 10 70 |
| Abram Martineau | 230 | Raritan Bay | 22.8 | Dec. 29, 1892 | 5 70 |
| Sealshipt Oyster System | Several. | Long Island Sound | 150.0 | Dec. 29, 1892 | 37 50 |
| A. F. Merrell | 864 | Raritan Bay | 25.4 | Dec. 29, 1892 | 6 35 |
| Andrew Radel | 78L | Long Island Sound | 104.0 | Dec. 29, 1892 | 26 00 |
| Standard Oyster Company | 860 | Raritan Bay | 11.2 | Dec. 29, 1892 | 2 80 |
| A. Martineau | 865 | Raritan Bay | 11.0 | Dec. 29, 1892 | 2 75 |
| Henry DeHart | 866 | Raritan Bay | 12.6 | Dec. 29, 1892 | 3 15 |
| J. D. Merrell | 869 | Raritan Bay | 1.8 | Feb. 14, 1893 | 45 |
| C. V. Decker | 870 | Raritan Bay | 3.6 | Feb. 14, 1893 | 90 |
| E. T. Butler | 871 | Raritan Bay | 2.6 | Feb. 14, 1893 | 65 |
| C. V. Decker | 876 | Raritan Bay | 38.4 | Feb. 14, 1893 | 9 60 |
| A. F. Merrell | 863 | Raritan Bay | 18.8 | Feb. 14, 1893 | 4 70 |
| Forrester & Hoag | 874 | Raritan Bay | 1.4 | Feb. 14, 1893 | 35 |
| Forrester & Hoag | 873 | Raritan Bay | 3.6 | Feb. 14, 1893 | 90 |
| J. S. Hoag | 875 | Raritan Bay | .8 | Feb. 14, 1893 | 20 |
| R. W. LaForge | 872 | Raritan Bay | .8 | Feb. 14, 1893 | 20 |
| A. F. Merrell | 877 | Raritan Bay | 6.2 | Feb. 14, 1893 | 1 55 |
| A. W. Sharrott | 656 | Raritan Bay | 13.2 | Mar. 14, 1893 | 3 30 |
| Elsworth Company | 784 | Raritan Bay | 1.6 | Mar. 14, 1893 | 40 |
| Sealshipt Oyster System | Several. | Long Island Sound | 250.0 | Mar. 14, 1893 | 62 50 |
| Sealshipt Oyster System | Several. | Long Island Sound | 250.0 | Mar. 14, 1893 | 62 50 |
| Northport Oyster Company | Several. | Long Island Sound | 65.0 | Mar. 14, 1893 | 16 25 |
| E. T. Butler | 839 | Raritan Bay | 4.2 | Feb. 14, 1893 | 1 05 |
| J. M. VanWyck | 398 | Raritan Bay | 3.2 | Mar. 14, 1893 | 80 |
| Sealshipt Oyster System | Several. | Long Island Sound | 260.0 | Nov. 7, 1892 | 65 00 |
| Sealshipt Oyster System | 891 | Raritan Bay | 151.2 | Oct. 7, 1897 | 37 80 |
| Standard Oyster Company | 238 | Raritan Bay | 29.4 | Aug. 12, 1890 | 7 35 |
| George Sharrott | 238 | Raritan Bay | 10.0 | Aug. 12, 1890 | 2 50 |
| Henry Burbank | 238 | Raritan Bay | 5.0 | Aug. 12, 1890 | 1 25 |
| Totals | ............ | ..................... | 15,991.6 | ........... | $3,998 11 |

## SCHEDULE "G"

| NAME. | Lot No. | Location. | Acres. | Lease granted. | Lease expires | Rate of rental. | Annual rental. | Annual tax. |
|---|---|---|---|---|---|---|---|---|
| Standard Oyster Company | 902 | Raritan Bay | 5.0 | Nov. 21, 1910 | Nov. 21, 1935 | $2 00 | $10 00 | $1 25 |
| Standard Oyster Company | 903 | Raritan Bay | 6.3 | Nov. 21, 1910 | Nov. 21, 1935 | 2 00 | 12 60 | 1 58 |
| Standard Oyster Company | 904 | Raritan Bay | 4.2 | Nov. 21, 1910 | Nov. 21, 1935 | 2 00 | 8 40 | 1 05 |
| Standard Oyster Company | 905 | Raritan Bay | 4.3 | Nov. 21, 1910 | Nov. 21, 1935 | 2 00 | 8 60 | 1 08 |
| George M. Still | 849 | Raritan Bay | 6.8 | July 21, 1910 | July 21, 1935 | 2 00 | 13 60 | 1 70 |
| Lowndes & Mills | 79L | Long Island Sound | 119.6 | Sept. 15, 1896 | Sept. 15, 1911 | 25 | 29 90 | 29 90 |
| Peter Miller | 1 | Jamaica Bay | 3.8 | Feb. 1, 1909 | Feb. 1, 1934 | 2 00 | 7 60 | 95 |
| Albert Geffken | 2 | Jamaica Bay | 1.0 | Aug. 10, 1908 | Aug. 10, 1933 | 2 00 | 2 00 | 25 |
| A. F. Merrill | 3 | Jamaica Bay | 3.8 | Mar. 10, 1910 | Mar. 10, 1935 | 2 00 | 7 60 | 95 |
| Josephine Geffken | 4 | Jamaica Bay | 1.4 | June 25, 1908 | June 25, 1933 | 2 00 | 2 80 | 35 |
| Josephine Geffken | 5 | Jamaica Bay | 1.8 | June 25, 1908 | June 25, 1933 | 2 00 | 3 60 | 45 |
| Ferdinand Moller | 6 | Jamaica Bay | 2.6 | Aug. 26, 1908 | Aug. 26, 1933 | 2 00 | 5 20 | 65 |
| A. H. Haack | 7 | Jamaica Bay | 2.2 | Aug. 24, 1908 | Aug. 24, 1933 | 2 00 | 4 40 | 55 |
| John F. Quigley | 8 | Jamaica Bay | 3.6 | Mar. 29, 1910 | Mar. 29, 1935 | 2 00 | 7 20 | 90 |
| A. F. Merrill | 9 | Jamaica Bay | 9.4 | Mar. 10, 1910 | Mar. 10, 1935 | 2 00 | 18 80 | 2 35 |
| Edward Weber | 10 | Jamaica Bay | 4.4 | Aug. 24, 1908 | Aug. 24, 1933 | 2 00 | 8 80 | 1 10 |
| John H. Schmeelk | 11 | Jamaica Bay | 3.6 | Aug. 23, 1909 | Aug. 23, 1934 | 2 00 | 7 20 | 90 |
| H. Von Twistern | 12 | Jamaica Bay | 2.4 | Sept. 21, 1909 | Sept. 21, 1934 | 2 00 | 4 92 | 60 |
| A. H. Haack | 12½ | Jamaica Bay | 1.8 | Mar. 14, 1910 | Mar. 14, 1935 | 2 00 | 3 60 | 45 |
| J. H. Schmeelk | 13 | Jamaica Bay | 3.0 | May 29, 1908 | May 29, 1933 | 2 00 | 6 00 | 75 |
| W. J. Tillotson | 14 | Jamaica Bay | 4.0 | May 27, 1908 | May 27, 1933 | 2 00 | 8 00 | 1 00 |
| William M. Schmeelk | 15 | Jamaica Bay | 3.2 | Jan. 4, 1909 | Jan. 4, 1934 | 2 00 | 6 40 | 80 |
| Peter Miller | 16 | Jamaica Bay | 4.8 | Feb. 1, 1909 | Feb. 1, 1934 | 2 00 | 9 60 | 1 20 |
| David Jones | 17 | Jamaica Bay | 3.8 | May 29, 1908 | May 29, 1933 | 2 00 | 7 60 | 95 |
| John H. Schmeelk | 18 | Jamaica Bay | 4.2 | May 29, 1908 | May 29, 1933 | 2 00 | 8 40 | 1 05 |
| A. F. Merrill | 19 | Jamaica Bay | 2.8 | Mar. 10, 1910 | Mar. 10, 1935 | 2 00 | 5 60 | 70 |
| A. F. Merrill | 20 | Jamaica Bay | 5.4 | Mar. 10, 1910 | Mar. 10, 1935 | 2 00 | 10 80 | 1 35 |
| John H. Schmeelk | 21 | Jamaica Bay | 3.8 | Aug. 23, 1909 | Aug. 23, 1934 | 2 00 | 7 60 | 95 |
| James H. McCrodden | 21 | Jamaica Bay | 4.0 | Mar. 16, 1910 | Mar. 16, 1935 | 2 00 | 8 00 | 1 00 |
| Clara McCrodden | 23 | Jamaica Bay | 2.6 | Mar. 18, 1910 | Mar. 18, 1935 | 2 00 | 5 20 | 65 |
| Joseph W. Hayward | 24 | Jamaica Bay | 1.8 | Oct. 5, 1909 | Oct. 5, 1934 | 2 00 | 3 60 | 45 |
| H. W. Schmeelk Oyster Company | 26 | Jamaica Bay | 4.4 | Mar. 9, 1910 | Mar. 9, 1935 | 2 00 | 8 80 | 1 10 |
| Henry Burmester | 28 | Jamaica Bay | 2.6 | July 27, 1908 | July 27, 1933 | 2 00 | 5 20 | 65 |
| Henry Burmester | 29 | Jamaica Bay | 2.6 | July 27, 1908 | July 27, 1933 | 2 00 | 5 20 | 65 |
| Wm. F. Schmeelk | 30 | Jamaica Bay | 2.4 | Sept. 10, 1910 | Sept. 10, 1935 | 2 00 | 4 80 | 60 |
| H. W. Behncke | 31 | Jamaica Bay | 2.6 | Aug. 18, 1909 | Aug. 18, 1934 | 2 00 | 5 20 | 65 |
| Peter W. Van Ahaem | 32 | Jamaica Bay | 10.6 | Sept. 17, 1908 | Sept. 18, 1933 | 2 00 | 21 20 | 2 65 |
| John Hansen | 34 | Jamaica Bay | 2.8 | Aug. 13, 1908 | Aug. 18, 1933 | 2 00 | 5 60 | 70 |
| H. W. Schmeelk Oyster Company | 35 | Jamaica Bay | 8.0 | Mar. 9, 1910 | Mar. 9, 1935 | 2 00 | 16 00 | 2 00 |

## Schedule "G" — *Continued*

| NAME. | Lot No. | Location. | Acres. | Lease granted. | Lease expires. | Rate of rental | Annual rental. | Annual tax. |
|---|---|---|---|---|---|---|---|---|
| H. W. Schmeelk Oyster Company | 36 | Jamaica Bay | 5.4 | Mar. 9, 1910 | Mar. 9, 1935 | $2 00 | $10 80 | $1 35 |
| H. W. Schmeelk Oyster Company | 37 | Jamaica Bay | 3.0 | Mar. 9, 1910 | Mar. 9, 1935 | 2 00 | 6 00 | 75 |
| H. W. Schmeelk Oyster Company | 38 | Jamaica Bay | 3.4 | Mar. 9, 1910 | Mar. 9, 1935 | 2 00 | 6 80 | 85 |
| H. W. Schmeelk Oyster Company | 39 | Jamaica Bay | 4.8 | Mar. 9, 1910 | Mar. 9, 1935 | 2 00 | 9 60 | 1 20 |
| J. W. Hayward | 42 | Jamaica Bay | 1.2 | Oct. 5, 1909 | Oct. 5, 1934 | 2 00 | 2 40 | 30 |
| George Dickens | 43 | Jamaica Bay | 3.2 | Sept. 21, 1909 | Sept. 21, 1934 | 2 00 | 6 40 | 80 |
| Edward Weber | 44 | Jamaica Bay | 2.0 | Aug. 24, 1908 | Aug. 24, 1933 | 2 00 | 4 00 | 50 |
| John H. Schmeelk | 45 | Jamaica Bay | 3.6 | June 9, 1910 | June 9, 1935 | 2 00 | 7 20 | 90 |
| Edward Weber | 47 | Jamaica Bay | 5.8 | Aug. 24, 1908 | Aug. 24, 1933 | 2 00 | 11 60 | 1 45 |
| Henry Borwegen | 48 | Jamaica Bay | 2.8 | Aug. 28, 1908 | Aug. 28, 1933 | 2 00 | 5 60 | 70 |
| Henry Borwegen | 50 | Jamaica Bay | 1.6 | Aug. 28, 1908 | Aug. 28, 1933 | 2 00 | 3 20 | 40 |
| Annie M. Van Ahnem, executrix | 54 | Jamaica Bay | 3.0 | Sept. 10, 1910 | Sept. 10, 1935 | 2 00 | 6 00 | 75 |
| H. W. Schmeelk Oyster Company | 58 | Jamaica Bay | 2.4 | Mar. 9, 1910 | Mar. 9, 1935 | 2 00 | 4 80 | 60 |
| James H. Morrison | 59 | Jamaica Bay | 6.0 | Oct. 28, 1908 | Oct. 28, 1933 | 2 00 | 12 00 | 1 50 |
| Estate, Nathanial Carman | 115 | Jamaica Bay | 2.4 | Mar. 21, 1910 | Mar. 21, 1905 | 2 00 | 4 80 | 60 |
| Margaretta Artillotson | 135 | Jamaica Bay | 4.2 | May 29, 1908 | May 29, 1933 | 2 00 | 8 40 | 1 05 |
| Charles V. Baldwin | 136 | Jamaica Bay | 4.0 | May 16, 1910 | May 16, 1935 | 2 00 | 8 00 | 1 00 |
| Richard Johnson | 92 | Jamaica Bay | 1.8 | June 23, 1908 | June 23, 1933 | 2 00 | 3 60 | 45 |
| George H. Johnson | 94 | Jamaica Bay | 1.8 | Sept. 9, 1908 | Sept. 9, 1933 | 2 00 | 3 60 | 45 |
| John D. Bush | 95 | Jamaica Bay | 1.2 | Aug. 26, 1908 | Aug. 26, 1933 | 2 00 | 2 40 | 30 |
| Mary Johnson | 96 | Jamaica Bay | 3.0 | June 23, 1908 | June 23, 1933 | 2 00 | 6 00 | 75 |
| William T. Schmeelk | 98 | Jamaica Bay | 9.2 | April 28, 1910 | April 28, 1935 | 2 00 | 18 40 | 2 30 |
| H. W. Schmeelk Oyster Company | 99 | Jamaica Bay | 1.6 | Mar. 9, 1910 | Mar. 9, 1935 | 2 00 | 3 20 | 40 |
| John R. Wofield | 100 | Jamaica Bay | 2.0 | May 18, 1909 | May 18, 1934 | 2 00 | 4 00 | 50 |
| A. D. Mersereau | 102 | Jamaica Bay | 1.4 | May 18, 1909 | May 18, 1934 | 2 00 | 2 80 | 35 |
| George A. Schmeelk | 103 | Jamaica Bay | 2.2 | Mar. 23, 1910 | Mar. 23, 1935 | 2 00 | 4 40 | 55 |
| H. W. Schmeelk Oyster Company | 106 | Jamaica Bay | 1.4 | Mar. 9, 1910 | Mar. 9, 1935 | 2 00 | 2 80 | 35 |
| Charles S. Sofield | 110 | Jamaica Bay | 5.2 | Aug. 13, 1910 | Aug. 13, 1935 | 2 00 | 10 40 | 1 30 |
| A. H. Haack | 108 | Jamaica Bay | 4.2 | Aug. 24, 1908 | Aug. 24, 1933 | 2 00 | 8 40 | 1 05 |
| H. W. Schmeelk Oyster Company | 107 | Jamaica Bay | 4.8 | Mar. 9, 1910 | Mar. 9, 1935 | 2 00 | 9 60 | 1 20 |
| H. W. Schmeelk Oyster Company | 109 | Jamaica Bay | 6.6 | Mar. 9, 1910 | Mar. 9, 1935 | 2 00 | 13 20 | 1 65 |
| Benjamin Ryder | 97 | Jamaica Bay | 1.8 | Oct. 25, 1909 | Oct. 25, 1934 | 2 00 | 3 60 | 45 |
| Benjamin Ryder | 93 | Jamaica Bay | 1.8 | Oct. 25, 1909 | Oct. 25, 1934 | 2 00 | 3 60 | 45 |
| Estate, Nathaniel Carman | 116 | Jamaica Bay | .6 | Mar. 21, 1910 | Mar. 21, 1935 | 2 00 | 1 20 | 15 |
| Ferdinand Moller | 87 | Jamaica Bay | 2.0 | Aug. 26, 1908 | Aug. 26, 1933 | 2 00 | 4 00 | 50 |
| Ludwig Klee | 64 | Jamaica Bay | 1.0 | July 15, 1908 | July 15, 1933 | 2 00 | 2 00 | 25 |
| Richard Johnson | 91 | Jamaica Bay | 3.2 | June 23, 1908 | June 23, 1933 | 2 00 | 6 40 | 80 |
| Ludwig Klee | 70 | Jamaica Bay | 1.6 | July 15, 1908 | July 15, 1933 | 2 00 | 3 20 | 40 |
| Ludwig Klee | 68 | Jamaica Bay | 2.0 | July 15, 1908 | July 15, 1933 | 2 00 | 4 00 | 50 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Charles Nelson | 69 | Jamaica Bay | 20.2 | Aug. 13, 1908 | Aug. 13, 1933 | 2 00 | 40 40 | 5 05 |
| William Oelrich | 65 | Jamaica Bay | 2.0 | July 27, 1908 | July 27, 1933 | 2 00 | 4 00 | 50 |
| William Oelrich | 67 | Jamaica Bay | 3.8 | July 27, 1908 | July 27, 1933 | 2 00 | 7 60 | 95 |
| Henry Bermuster | 63 | Jamaica Bay | 6.2 | July 27, 1908 | July 27, 1933 | 2 00 | 12 40 | 1 55 |
| H. W. Schmeelk Oyster Company | 62 | Jamaica Bay | 5.2 | Mar. 9, 1910 | Mar. 10, 1935 | 2 00 | 10 40 | 1 30 |
| W. Henry Dickens | 61 | Jamaica Bay | 7.8 | Sept. 21, 1909 | Sept. 21, 1934 | 2 00 | 15 60 | 1 95 |
| Ferdinand Moller | 72 | Jamaica Bay | 2.4 | Aug. 26, 1908 | Aug. 26, 1933 | 2 00 | 4 80 | 60 |
| Ferdinand Moller | 86 | Jamaica Bay | 1.8 | Aug. 26, 1908 | Aug. 26, 1933 | 2 00 | 3 60 | 45 |
| Rockaway Oyster Company | 84 | Jamaica Bay | 3.0 | July 21, 1908 | July 21, 1933 | 2 00 | 6 00 | 75 |
| Lillian I. Whittaker | 83 | Jamaica Bay | 5.0 | Mar. 8, 1910 | Mar. 8, 1935 | 2 00 | 10 00 | 1 25 |
| John Whittaker | 82 | Jamaica Bay | 5.8 | Mar. 7, 1910 | Mar. 7, 1935 | 2 00 | 11 60 | 1 45 |
| Rockaway Oyster Company | 80 | Jamaica Bay | 4.4 | July 21, 1908 | July 21, 1933 | 2 00 | 8 80 | 1 10 |
| Rockaway Oyster Company | 79 | Jamaica Bay | 1.8 | July 30, 1908 | July 30, 1933 | 2 00 | 3 60 | 45 |
| H. W. Schmeelk Oyster Company | 78 | Jamaica Bay | 4.4 | Mar. 9, 1910 | Mar. 9, 1935 | 2 00 | 8 80 | 1 10 |
| H. W. Schmeelk Oyster Company | 76 | Jamaica Bay | 1.8 | Mar. 9, 1910 | Mar. 9, 1935 | 2 00 | 3 60 | 45 |
| H. W. Schmeelk Oyster Company | 75 | Jamaica Bay | 4.0 | June 8, 1910 | June 8, 1935 | 2 00 | 8 00 | 1 00 |
| H. W. Schmeelk Oyster Company | 74 | Jamaica Bay | 3.2 | June 8, 1910 | June 8, 1935 | 2 00 | 6 40 | 80 |
| Annie Van Ahnem, executrix | 73 | Jamaica Bay | 4.0 | Nov. 12, 1910 | Nov. 12, 1935 | 2 00 | 8 00 | 1 00 |
| John Hansen | 71 | Jamaica Bay | 2.8 | Aug. 13, 1908 | Aug. 13, 1935 | 2 00 | 70 | 70 |
| George A. Carman | 118 | Jamaica Bay | 3.4 | Mar. 8, 1910 | Mar. 8, 1935 | 2 00 | 6 80 | 85 |
| Grace L. Ryder | 119 | Jamaica Bay | .8 | Oct. 27, 1909 | Oct. 27, 1934 | 2 00 | 1 60 | 20 |
| Benjamin Ryder | 126 | Jamaica Bay | .6 | Oct. 25, 1909 | Oct. 25, 1934 | 2 00 | 1 20 | 15 |
| H. W. Schmeelk Oyster Company | 130 | Jamaica Bay | 2.4 | Mar. 9, 1910 | Mar. 9, 1935 | 2 00 | 4 80 | 60 |
| Jane Johnson | 132 | Jamaica Bay | 5.0 | Sept. 9, 1908 | Sept. 9, 1933 | 2 00 | 10 00 | 1 25 |
| Rockaway Oyster Company | 85 | Jamaica Bay | 1.8 | July 21, 1908 | July 21, 1933 | 2 00 | 3 60 | 45 |
| Julia Sofield | 140 | Jamaica Bay | 27.0 | Nov. 12, 1903 | Nov. 12, 1935 | 2 00 | 54 00 | 6 75 |
| H. W. Schmeelk Oyster Company | 141 | Jamaica Bay | 6.0 | Mar. 9, 1910 | Mar. 9, 1935 | 2 00 | 12 00 | 1 50 |
| Daniel Rowland | 143 | Jamaica Bay | 4.0 | May 27, 1908 | May 27, 1933 | 2 00 | 8 00 | 1 00 |
| H. W. Schmeelk Oyster Company | 142 | Jamaica Bay | 5.0 | Mar. 9, 1910 | Mar. 9, 1935 | 2 00 | 10 00 | 1 25 |
| C. Josephine Biggs | 144 | Jamaica Bay | 3.0 | June 1, 1908 | June 1, 1933 | 2 00 | 6 00 | 75 |
| H. W. Schmeelk Oyster Company | 145 | Jamaica Bay | 5.2 | Mar. 9, 1910 | Mar. 9, 1935 | 2 00 | 10 40 | 1 30 |
| A. F. Merrill | 146 | Jamaica Bay | 4.2 | Mar. 10, 1910 | Mar. 10, 1935 | 2 00 | 8 40 | 1 05 |
| H. W. Schmeelk Oyster Company | 147 | Jamaica Bay | 12.6 | Mar. 9, 1910 | Mar. 9, 1935 | 2 00 | 25 20 | 3 15 |
| H. W. Schmeelk Oyster Company | 148 | Jamaica Bay | 3.2 | Mar. 9, 1910 | Mar. 9, 1935 | 2 00 | 6 40 | 80 |
| C. Josephine Biggs | 149 | Jamaica Bay | 1.6 | June 17, 1908 | June 17, 1933 | 2 00 | 3 20 | 40 |
| John Biggs | 150 | Jamaica Bay | 7.2 | June 1, 1908 | June 1, 1933 | 2 00 | 14 40 | 1 80 |
| John Biggs | 151 | Jamaica Bay | .6 | July 3, 1908 | July 3, 1933 | 2 00 | 1 20 | 15 |
| Charles Demton | 152 | Jamaica Bay | 3.2 | Oct. 9, 1910 | Oct. 9, 1935 | 2 00 | 6 40 | 80 |
| Charles Demton | 153 | Jamaica Bay | 2.2 | Oct. 9, 1910 | Oct. 9, 1935 | 2 00 | 4 40 | 55 |
| C. S. Sofield | 156 | Jamaica Bay | .8 | Jan. 7, 1911 | Jan. 7, 1936 | 2 00 | 1 60 | 20 |
| Sofield & Frazer | 154 | Jamaica Bay | 1.6 | Jan. 7, 1911 | Jan. 7, 1936 | 2 00 | 3 20 | 40 |
| Rockaway Oyster Company | 158 | Jamaica Bay | 6.6 | June 26, 1908 | June 26, 1933 | 2 00 | 13 20 | 1 65 |
| W. H. Morrison | 159 | Jamaica Bay | 5.6 | May 9, 1910 | May 9, 1935 | 2 00 | 11 20 | 1 40 |
| Mary R. Behncke | 161 | Jamaica Bay | 3.8 | Aug. 18, 1909 | Aug. 18, 1934 | 2 00 | 11 60 | 1 45 |
| Sofield & Frazer | 168 | Jamaica Bay | 3.2 | Oct. 9, 1910 | Oct. 9, 1935 | 2 00 | 6 40 | 80 |
| Sofield & Frazer | 169 | Jamaica Bay | 3.2 | Oct. 9, 1910 | Oct. 9, 1935 | 2 00 | 6 40 | 80 |
| Julia Sofield | 170 | Jamaica Bay | 4.4 | Oct. 9, 1910 | Oct. 9, 1935 | 2 00 | 8 80 | 1 10 |
| Charles S. Sofield | 171 | Jamaica Bay | 2.4 | Sept. 10, 1910 | Sept. 10, 1935 | 2 00 | 4 80 | 60 |
| H. W. Schmeelk Oyster Company | 172 | Jamaica Bay | 27.2 | Mar. 9, 1910 | Mar. 9, 1935 | 2 00 | 54 40 | 6 80 |
| J. H. Veerland, Jr | 185 | Jamaica Bay | 12.0 | June 20, 1908 | June 20, 1933 | 2 00 | 24 00 | 3 00 |

## Schedule "G" — *Continued*

| NAME. | Lot No. | Location. | Acres. | Lease granted. | Lease expires. | Rate of rental. | Annual rental. | Annual tax. |
|---|---|---|---|---|---|---|---|---|
| Edward Weber | 183 | Jamaica Bay | 3.2 | Aug. 4, 1908 | Aug. 24, 1933 | $2 00 | $6 40 | $0 80 |
| W. S. Ford | 179 | Jamaica Bay | 4.4 | Mar. 16, 1910 | Mar. 16, 1935 | 2 00 | 8 80 | 1 10 |
| H. W. Schmeelk Oyster Company | 176 | Jamaica Bay | 3.8 | Mar. 9, 1910 | Mar. 10, 1935 | 2 00 | 7 60 | 95 |
| H. W. Schmeelk Oyster Company | 174 | Jamaica Bay | 5.0 | Mar. 9, 1910 | Mar. 10, 1935 | 2 00 | 10 00 | 1 25 |
| P. William Van Ahem | 205 | Jamaica Bay | 8.2 | Sept. 17, 1908 | Sept. 17, 1933 | 2 00 | 16 40 | 2 05 |
| P. William Van Ahem | 206 | Jamaica Bay | .8 | Feb. 9, 1897 | Feb. 9, 1912 | 2 00 | 20 | 20 |
| Daniel Rowland | 189 | Jamaica Bay | 2.5 | Nov. 10, 1906 | Nov. 10, 1911 | 63 | 63 | 63 |
| C. V. Baldwin | 189 | Jamaica Bay | 2.5 | Nov. 10, 1906 | Nov. 10, 1911 | 62 | 62 | 62 |
| A. F. Merrill | 200 | Jamaica Bay | 7.2 | Mar. 10, 1910 | Mar. 10, 1935 | 2 00 | 14 40 | 1 80 |
| John R. Wofield | 195 | Jamaica Bay | 2.0 | May 9, 1909 | May 9, 1934 | 2 00 | 4 00 | 50 |
| H. W. Schmeelk Oyster Company | 193 | Jamaica Bay | 3.2 | Mar. 9, 1910 | Mar. 9, 1935 | 2 00 | 6 40 | 80 |
| H. W. Schmeelk Oyster Company | 192 | Jamaica Bay | 1.2 | Mar. 9, 1910 | Mar. 9, 1935 | 2 00 | 2 40 | 30 |
| E. O. Hovey | 198 | Jamaica Bay | 41.6 | May 4, 1910 | May 4, 1935 | 2 00 | 83 20 | 10 40 |
| W. O. Baldwin | 199 | Jamaica Bay | 5.4 | May 16, 1910 | May 16, 1935 | 2 00 | 10 80 | 1 35 |
| John H. Schmeelk | 201 | Jamaica Bay | 2.8 | Nov. 10, 1896 | Nov. 10, 1911 | 70 | 70 | 70 |
| P. W. Van Ahem | 204 | Jamaica Bay | 1.0 | Sept. 17, 1908 | Sept. 17, 1933 | 2 00 | 2 00 | 25 |
| H. W. Schmeelk Oyster Company | 191 | Jamaica Bay | 1.6 | Mar. 9, 1910 | Mar. 9, 1935 | 2 00 | 3 20 | 40 |
| Henry Schumacker | 249 | Jamaica Bay | 7.0 | Oct. 12, 1897 | Oct. 12, 1912 | 1 25 | 1 75 | 1 75 |
| Benjamin Ryder | 203 | Jamaica Bay | 1.6 | Dec. 22, 1896 | Dec. 22, 1911 | 40 | 40 | 40 |
| Annie Van Ahnem | 40 | Jamaica Bay | 4.8 | Sept. 10, 1908 | Sept. 10, 1933 | 2 00 | 9 60 | 1 20 |
| Annie Oelrichs | 66 | Jamaica Bay | 5.2 | July 30, 1908 | July 30, 1933 | 2 00 | 10 40 | 1 30 |
| Carl Peers | 133 | Jamaica Bay | 3.8 | June 8, 1908 | June 8, 1933 | 2 00 | 7 60 | 95 |
| Herman Van Ahnem | 41 | Jamaica Bay | 6.4 | Sept. 2, 1908 | Sept. 2, 1933 | 2 00 | 12 80 | 1 60 |
| H. W. Schmeelk Oyster Company | 232 | Jamaica Bay | 4.0 | Mar. 9, 1910 | Mar. 9, 1935 | 2 00 | 8 00 | 1 00 |
| John Whittaker | 231 | Jamaica Bay | 4.4 | Mar. 7, 1910 | Mar. 7, 1935 | 2 00 | 8 80 | 1 10 |
| H.W. Schmeelk Oyster Company | 230 | Jamaica Bay | 5.8 | June 8, 1910 | June 8, 1935 | 2 00 | 11 60 | 1 45 |
| John Whittaker | 229 | Jamaica Bay | 10.4 | Mar. 7, 1910 | Mar. 7, 1935 | 2 00 | 20 80 | 2 60 |
| Margaret R. Tillotson | 228 | Jamaica Bay | 4.2 | June 8, 1897 | June 8, 1912 | 25 | 1 05 | 1 05 |
| E. O. Hozey | 227 | Jamaica Bay | 3.0 | May 4, 1910 | May 4, 1935 | 2 00 | 6 00 | 75 |
| H. W. Schmeelk Oyster Company | 226 | Jamaica Bay | 1.8 | Mar. 9, 1910 | Mar. 9, 1935 | 2 00 | 3 60 | 45 |
| H. W. Schmeelk Oyster Company | 225 | Jamaica Bay | 5.2 | Mar. 9, 1910 | Mar. 9, 1935 | 2 00 | 10 40 | 1 30 |
| Rockaway Oyster Company | 224 | Jamaica Bay | 2.0 | Jan. 12, 1897 | Jan. 12, 1912 | 25 | 50 | 50 |
| Charles McCrodden | 221 | Jamaica Bay | 9.4 | Oct. 12, 1897 | Oct. 12, 1912 | 25 | 2 35 | 2 35 |
| H. W. Schmeelk Oyster Company | 220 | Jamaica Bay | 4.2 | Mar. 9, 1910 | Mar. 9, 1935 | 2 00 | 8 40 | 1 05 |
| Joseph Harris | 219 | Jamaica Bay | 6.8 | June 8, 1897 | June 8, 1912 | 25 | 1 70 | 1 70 |
| George A. Carman | 218 | Jamaica Bay | 4.2 | Mar. 8, 1910 | Mar. 8, 1935 | 2 00 | 8 40 | 1 05 |
| Joseph Flaherty | 217 | Jamaica Bay | 5.4 | April 13, 1897 | April 13, 1912 | 25 | 1 35 | 1 35 |
| Carl Peers | 216 | Jamaica Bay | 2.0 | June 8, 1897 | June 8, 1912 | 25 | 50 | 50 |
| Carl Peers | 215 | Jamaica Bay | 2.8 | June 8, 1908 | June 8, 1933 | 2 00 | 5 60 | 70 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| W. H. Dickens | 213 | Jamaica Bay | 5.0 | Mar. 11, 1910 | Mar. 11, 1935 | 4 00 | 10 00 | 1 25 |
| J. H. Schmeelk | 212 | Jamaica Bay | 12.6 | Feb. 9, 1897 | Feb. 9, 1912 | 25 | 3 15 | 3 15 |
| J. H. Schmeelk | 211 | Jamaica Bay | 4.4 | April 13, 1897 | April 13, 1912 | 25 | 1 10 | 1 10 |
| George A. Schmeelk | 210 | Jamaica Bay | 10.8 | Mar. 14, 1910 | Mar. 14, 1935 | 2 00 | 21 60 | 2 70 |
| Ludwig Klee | 209 | Jamaica Bay | 13.0 | Aug. 11, 1908 | Aug. 11, 1933 | 2 00 | 26 00 | 3 25 |
| W. M. Schmeelk | 208 | Jamaica Bay | 6.4 | Jan. 4, 1909 | Jan. 4, 1934 | 2 00 | 12 80 | 1 60 |
| Sealshipt Oyster System | 207 | Jamaica Bay | 14.2 | June 20, 1911 | June 20, 1936 | 2 00 | 28 40 | 3 55 |
| J. R. Wofield | 101 | Jamaica Bay | 2.8 | May 18, 1909 | May 18, 1934 | 2 00 | 5 60 | 70 |
| James H. Abrams | 271 | Jamaica Bay | 2.4 | July 13, 1897 | July 13, 1912 | 25 | 60 | 60 |
| H. W. Schmeelk Oyster Company | 273 | Jamaica Bay | 8.8 | Mar. 9, 1910 | Mar. 9, 1935 | 2 00 | 17 60 | 2 20 |
| John Abrams | 268 | Jamaica Bay | 2.0 | Sept. 21, 1909 | Sept. 21, 1934 | 2 00 | 4 00 | 50 |
| W. H. Dickens | 250 | Jamaica Bay | 2.8 | Aug. 18, 1908 | Aug. 18, 1933 | 2 00 | 5 60 | 70 |
| Benjamin Ryder | 246 | Jamaica Bay | 2.0 | Oct. 12, 1897 | Oct. 12, 1912 | 25 | 50 | 50 |
| Emma W. Abrams | 267 | Jamaica Bay | 2.2 | Sept. 21, 1909 | Sept. 21, 1934 | 2 00 | 4 40 | 55 |
| W. A. Winant | 266 | Jamaica Bay | 6.4 | Nov. 2, 1909 | Nov. 9, 1934 | 2 00 | 12 80 | 1 60 |
| Daniel F. Huffmire | 264 | Jamaica Bay | 1.6 | Sept. 21, 1909 | Sept. 21, 1934 | 2 00 | 3 20 | 40 |
| L. L. Huffmire | 265 | Jamaica Bay | 1.4 | Sept. 21, 1909 | Sept. 21, 1934 | 2 00 | 2 80 | 35 |
| L. L. Huffmire | 263 | Jamaica Bay | 5.4 | Sept. 21, 1909 | Sept. 21, 1934 | 2 00 | 10 80 | 1 35 |
| L. L. Huffmire | 262 | Jamaica Bay | 12.4 | Sept. 21, 1909 | Sept. 21, 1934 | 2 00 | 24 80 | 3 10 |
| Willett Raynor | 261 | Jamaica Bay | 2.0 | Sept. 21, 1909 | Sept. 21, 1934 | 2 00 | 4 00 | 50 |
| Willett Raynor | 260 | Jamaica Bay | 2.8 | Oct. 21, 1909 | Oct. 1, 1934 | 2 00 | 5 60 | 70 |
| Elizabeth Denice, executrix | 259 | Jamaica Bay | 3.6 | Nov. 5, 1909 | Nov. 5, 1934 | 2 00 | 7 20 | 90 |
| Willett E. Raynor | 257 | Jamaica Bay | 4.8 | Oct. 2, 1909 | Oct. 9, 1934 | 2 00 | 9 60 | 1 20 |
| Elizabeth Denice, executrix | 258 | Jamaica Bay | 5.4 | Nov. 5, 1909 | Nov. 5, 1934 | 2 00 | 10 80 | 1 35 |
| H. W. Schmeelk Oyster Company | 276 | Jamaica Bay | 3.0 | Mar. 9, 1910 | Mar. 9, 1935 | 2 00 | 6 00 | 75 |
| Robert L. Kind | 245 | Jamaica Bay | 3.8 | June 8, 1897 | June 8, 1912 | 25 | 95 | 95 |
| Major B. Abrams | 241 | Jamaica Bay | 13.0 | June 8, 1897 | June 8, 1912 | 25 | 3 25 | 3 25 |
| George H. Johnson | 243 | Jamaica Bay | 4.2 | June 8, 1897 | June 8, 1912 | 25 | 1 05 | 1 05 |
| W. H. Abrams | 244 | Jamaica Bay | 1.4 | June 8, 1897 | June 8, 1912 | 25 | 35 | 35 |
| W. H. Abrams | 240 | Jamaica Bay | .4 | June 8, 1897 | June 8, 1912 | 25 | 10 | 10 |
| Erastus W. Seaman | 278 | Jamaica Bay | 15.2 | Nov. 9, 1897 | Nov. 9, 1912 | 25 | 3 80 | 3 80 |
| W. H. Abrams | 280 | Jamaica Bay | 1.4 | Nov. 9, 1897 | Nov. 9, 1912 | 25 | 35 | 35 |
| George A. Schmeelk | 281 | Jamaica Bay | 2.2 | Mar. 14, 1910 | Mar. 14, 1935 | 2 00 | 4 40 | 55 |
| W. J. Tillotson | 282 | Jamaica Bay | 7.6 | June 8, 1897 | June 8, 1912 | 25 | 1 90 | 1 90 |
| John F. Wight | 237 | Jamaica Bay | 3.8 | Dec. 22, 1896 | Dec. 22, 1911 | 25 | 95 | 95 |
| Sealshipt Oyster System | 913 | Raritan Bay | 42.6 | May 11, 1897 | May 11, 1912 | 25 | 10 65 | 10 65 |
| Polworth & Elsworth | 915 | Raritan Bay | 45.8 | Oct. 12, 1897 | Oct. 12, 1912 | 25 | 11 45 | 11 45 |
| New York Oyster Company | 918 | Raritan Bay | 12.8 | Jan. 11, 1898 | Jan. 11, 1913 | 25 | 3 20 | 3 20 |
| J. I. Merrill | 919 | Raritan Bay | 14.4 | Aug. 15, 1898 | Aug. 15, 1913 | 25 | 3 60 | 3 60 |
| W. H. Lockwood | 920 | Raritan Bay | 7.2 | Aug. 9, 1898 | Aug. 9, 1913 | 25 | 1 80 | 1 80 |
| Polworth & Elsworth | 917 | Raritan Bay | 11.4 | Jan. 11, 1898 | Jan. 11, 1913 | 25 | 2 85 | 2 85 |
| New York Oyster Company | 916 | Raritan Bay | 44.2 | Feb. 8, 1898 | Feb. 8, 1913 | 25 | 11 05 | 11 05 |
| Sealshipt Oyster System | 924 | Raritan Bay | 58.2 | Jan. 11, 1898 | Jan. 11, 1913 | 25 | 14 55 | 14 55 |
| John T. Ford | 289 | Jamaica Bay | 4.6 | June 14, 1898 | June 14, 1913 | 25 | 1 15 | 1 15 |
| Joseph Ryder | 288 | Jamaica Bay | 2.0 | Feb. 8, 1898 | Feb. 8, 1913 | 25 | 50 | 50 |
| John R. Wofield | 285 | Jamaica Bay | 2.8 | May 18, 1909 | May 18, 1934 | 2 00 | 5 60 | 70 |
| Walter C. Denton | 287 | Jamaica Bay | 11.4 | June 9, 1898 | June 9, 1912 | 25 | 2 85 | 2 85 |
| H. W. Schmeelk Oyster Company | 317 | Jamaica Bay | 13.2 | Feb. 8, 1898 | Feb. 8, 1913 | 25 | 3 30 | 3 30 |
| Wm. M. Schmeelk | 316 | Jamaica Bay | 8.8 | Jan. 9, 1909 | Jan. 9, 1934 | 2 00 | 17 60 | 2 20 |
| David L. Jones | 315 | Jamaica Bay | 3.4 | Feb. 8, 1898 | Feb. 8, 1913 | 25 | 85 | 85 |

## SCHEDULE "G" — *Continued*

| NAME. | Lot No. | Location. | Acres. | Lease granted. | Lease expires. | Rate of rental | Annual rental. | Annual tax. |
|---|---|---|---|---|---|---|---|---|
| John H. Schmeelk | 313 | Jamaica Bay | 9.0 | Mar. 8, 1898 | Mar. 8, 1913 | $0 25 | $2 25 | $2 25 |
| John H. Schmeelk | 314 | Jamaica Bay | 2.8 | Feb. 8, 1898 | Feb. 8, 1913 | 25 | 70 | 70 |
| John H. Schmeelk | 312 | Jamaica Bay | 9.8 | Mar. 8, 1898 | Mar. 8, 1913 | 25 | 2 45 | 2 45 |
| Henry Bermuster | 311 | Jamaica Bay | 9.2 | June 27, 1898 | June 27, 1913 | 25 | 2 30 | 2 30 |
| Henry Borwegen | 310 | Jamaica Bay | 17.0 | April 12, 1898 | April 12, 1913 | 25 | 4 25 | 4 25 |
| A. H. Haack | 309 | Jamaica Bay | 13.2 | Aug. 24, 1908 | Aug. 24, 1933 | 2 00 | 26 40 | 3 30 |
| Carl Peers | 308 | Jamaica Bay | 7.6 | Aug. 9, 1898 | Aug. 9, 1913 | 25 | 1 90 | 1 90 |
| John Hansen | 307 | Jamaica Bay | 10.2 | Nov. 16, 1908 | Nov. 16, 1933 | 2 00 | 2 40 | 2 55 |
| J. H. Schmeelk | 305 | Jamaica Bay | 2.2 | April 12, 1898 | April 12, 1913 | 25 | 55 | 55 |
| Annie N. Van Ahnem | 304 | Jamaica Bay | 11.4 | April 4, 1911 | April 4, 1936 | 2 00 | 22 80 | 2 85 |
| William Oelrichs | 303 | Jamaica Bay | 3.0 | June 27, 1898 | June 27, 1913 | 25 | 75 | 75 |
| William Oelrichs | 302 | Jamaica Bay | 10.2 | July 27, 1908 | July 27, 1933 | 2 00 | 20 40 | 2 55 |
| E. Otis Hovey | 301 | Jamaica Bay | 14.8 | May 4, 1910 | May 4, 1935 | 2 00 | 29 60 | 3 70 |
| James W. Barne | 300 | Jamaica Bay | 7.2 | Feb. 8, 1898 | Feb. 8, 1913 | 25 | 1 80 | 1 80 |
| Richard L. Klee | 298 | Jamaica Bay | 1.4 | May 10, 1898 | May 10, 1913 | 25 | 35 | 35 |
| Ferdinand Moller | 297 | Jamaica Bay | 2.0 | Aug. 26, 1908 | Aug. 26, 1933 | 2 00 | 4 00 | 50 |
| Ferdinand Moller | 296 | Jamaica Bay | 2.4 | Aug. 26, 1908 | Aug. 26, 1933 | 2 00 | 4 80 | 60 |
| John H. Abrams | 295 | Jamaica Bay | 1.4 | Aug. 9, 1898 | Aug. 9, 1913 | 25 | 35 | 35 |
| John H. Abrams | 294 | Jamaica Bay | 3.8 | Aug. 9, 1898 | Aug. 9, 1913 | 25 | 95 | 95 |
| Sealshipt Oyster System | 327 | Jamaica Bay | 11.6 | June 20, 1911 | June 20, 1936 | 2 00 | 23 20 | 2 90 |
| H. W. Schmeelk Oyster Company | 328 | Jamaica Bay | 5.4 | Mar. 9, 1910 | Mar. 9, 1935 | 2 00 | 10 80 | 1 35 |
| H. W. Schmeelk Oyster Company | 335 | Jamaica Bay | 6.6 | Mar. 9, 1910 | Mar. 9, 1935 | 2 00 | 13 20 | 1 65 |
| Rockaway Oyster Company | 332 | Jamaica Bay | 5.8 | July 21, 1908 | July 21, 1933 | 2 00 | 11 60 | 1 45 |
| Robert W. Hoyt | 334 | Jamaica Bay | 1.0 | June 27, 1898 | June 27, 1913 | 25 | 25 | 25 |
| H. W. Schmeelk Oyster Company | 337 | Jamaica Bay | 6.6 | Mar. 9, 1910 | Mar. 9, 1935 | 2 00 | 13 20 | 1 65 |
| Charles E. Denton | 340 | Jamaica Bay | 8.2 | June 14, 1898 | June 14, 1913 | 25 | 2 05 | 2 05 |
| Ella Sofield | 90 | Jamaica Bay | 22.6 | Nov. 12, 1910 | Nov. 12, 1935 | 2 00 | 45 20 | 5 65 |
| Charles E. Denton | 341 | Jamaica Bay | 5.4 | May 10, 1898 | May 10, 1913 | 25 | 1 35 | 1 35 |
| Henry W. Davis | 343 | Jamaica Bay | 10.6 | Jan. 11, 1898 | Jan. 11, 1913 | 25 | 2 65 | 2 65 |
| Walter C. Denton | 344 | Jamaica Bay | 4.4 | May 10, 1898 | May 10, 1913 | 25 | 1 10 | 1 10 |
| Daniel Rowland | 345B | Jamaica Bay | 5.6 | May 9, 1910 | May 9, 1935 | 12 00 | 11 20 | 1 40 |
| William H. Morrison | 345A | Jamaica Bay | 3.4 | May 9, 1910 | May 9, 1935 | 2 00 | 6 80 | 85 |
| Daniel Rowland | 346 | Jamaica Bay | 3.4 | May 27, 1908 | May 27, 1933 | 2 00 | 6 80 | 45 |
| Rockaway Oyster Company | 347 | Jamaica Bay | 19.8 | Jan. 11, 1898 | Jan. 11, 1913 | 25 | 4 95 | 4 95 |
| Henry L. Schmeelk | 318 | Jamaica Bay | 5.0 | Dec. 14, 1897 | Dec. 14, 1912 | 25 | 1 25 | 1 25 |
| P. W. Van Ahnem | 319 | Jamaica Bay | 9.6 | Dec. 14, 1897 | Dec. 14, 1912 | 25 | 2 40 | 2 40 |
| F. A. Brimlow | 320 | Jamaica Bay | 3.4 | Mar. 8, 1898 | Mar. 8, 1913 | 25 | 85 | 85 |
| H. W. Schmeelk Oyster Company | 351 | Jamaica Bay | 8.0 | Mar. 9, 1910 | Mar. 9, 1935 | 2 00 | 16 00 | 2 00 |
| Wynant Huffmire | 355 | Jamaica Bay | 7.2 | Sept. 21, 1909 | Sept. 21, 1934 | 2 00 | 14 40 | 1 80 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Harry C. Johnson | 361 | Jamaica Bay | 2.0 | Mar. 21, 1910 | Mar. 21, 1935 | 2 00 | 4 00 | 50 |
| Valentine Smith | 362 | Jamaica Bay | 3.6 | Mar. 21, 1910 | Mar. 21, 1935 | 2 00 | 7 20 | 90 |
| Valentine Smith | 365 | Jamaica Bay | 2.0 | Mar. 21, 1910 | Mar. 21, 1935 | 2 00 | 4 00 | 50 |
| E. & T. Sprague | 366 | Jamaica Bay | 1.2 | Mar. 19, 1910 | Mar. 19, 1935 | 2 00 | 2 40 | 30 |
| Haviland & Odell | 368 | Jamaica Bay | 4.6 | Aug. 15, 1898 | Aug. 15, 1913 | 25 | 1 15 | 1 15 |
| Cornell & Palmer | 369 | Jamaica Bay | 12.0 | Jan. 17, 1911 | Jan. 17, 1936 | 2 00 | 24 00 | 3 00 |
| Richard H. Smith | 371 | Jamaica Bay | 6.2 | July 18, 1898 | July 18, 1913 | 25 | 1 55 | 1 55 |
| Warren Cornell | 372 | Jamaica Bay | 5.0 | Mar. 22, 1910 | Mar. 22, 1935 | 2 00 | 10 00 | 1 25 |
| W. E. Sprague | 373 | Jamaica Bay | 4.4 | July 18, 1898 | July 18, 1913 | 25 | 1 10 | 1 10 |
| W. E. Sprague | 374 | Jamaica Bay | 14.6 | July 18, 1898 | July 18, 1913 | 25 | 3 65 | 3 65 |
| Ezra Sprague | 375 | Jamaica Bay | 1.2 | Mar. 19, 1910 | Mar. 19, 1935 | 2 00 | 2 40 | 30 |
| George H. Hicks | 376 | Jamaica Bay | 2.0 | July 18, 1898 | July 18, 1913 | 25 | 50 | 50 |
| George W. Doughty | 377 | Jamaica Bay | 2.0 | Mar. 19, 1910 | Mar. 19, 1935 | 2 00 | 4 00 | 50 |
| George H. Hicks | 378 | Jamaica Bay | 3.2 | July 18, 1898 | July 18, 1913 | 25 | 80 | 80 |
| Sprague & Doughty | 379 | Jamaica Bay | 1.8 | July 18, 1898 | July 18, 1913 | 2 00 | 3 60 | 45 |
| Sprague & Doughty | 380 | Jamaica Bay | .8 | Mar. 19, 1910 | Mar. 19, 1935 | 2 00 | 1 60 | 20 |
| Sprague & Doughty | 381 | Jamaica Bay | 3.4 | Mar. 19, 1910 | Mar. 19, 1935 | 2 00 | 6 80 | 85 |
| Sprague & Doughty | 382 | Jamaica Bay | 2.4 | Mar. 19, 1910 | Mar. 19, 1935 | 2 00 | 4 80 | 60 |
| George W. Doughty | 383 | Jamaica Bay | 5.0 | Mar. 19, 1910 | Mar. 19, 1935 | 2 00 | 10 00 | 1 25 |
| Joseph Ryder | 383 | Jamaica Bay | 9.0 | Mar. 8, 1898 | Mar. 8, 1913 | 25 | 2 25 | 2 25 |
| S. Samuel B. Abrams | 384 | Jamaica Bay | 2.6 | Mar. 19, 1910 | Mar. 19, 1935 | 2 00 | 5 20 | 65 |
| J. F. & S. E. Smith | 385 | Jamaica Bay | 3.0 | Mar. 21, 1910 | Mar. 21, 1935 | 2 00 | 6 00 | 75 |
| George W. Doughty | 386 | Jamaica Bay | 1.8 | Mar. 19, 1910 | Mar. 19, 1935 | 2 00 | 3 60 | 45 |
| Sprague & Doughty | 387 | Jamaica Bay | 13.8 | Mar. 19, 1910 | Mar. 19, 1935 | 2 00 | 27 60 | 3 45 |
| Smith Sprague | 388 | Jamaica Bay | 3.6 | Mar. 19, 1910 | Mar. 19, 1935 | 2 00 | 7 20 | 90 |
| Smith Sprague | 390 | Jamaica Bay | 4.0 | Mar. 19, 1910 | Mar. 19, 1935 | 2 00 | 8 00 | 1 00 |
| A. F. Merrill | 391 | Jamaica Bay | 2.0 | Mar. 10, 1910 | Mar. 10, 1935 | 2 00 | 4 00 | 50 |
| A. F. Merrill | 392 | Jamaica Bay | 1.6 | Mar. 10, 1910 | Mar. 10, 1935 | 2 00 | 3 20 | 40 |
| Smith Sprague | 393 | Jamaica Bay | 1.6 | Mar. 19, 1910 | Mar. 19, 1935 | 2 00 | 3 20 | 40 |
| Smith Sprague | 394 | Jamaica Bay | 1.8 | Mar. 19, 1910 | Mar. 19, 1935 | 2 00 | 3 60 | 45 |
| George H. Mott | 395 | Jamaica Bay | 2.0 | July 18, 1898 | July 18, 1913 | 25 | 50 | 50 |
| Gustave Albright | 395 | Jamaica Bay | 2.0 | July 18, 1898 | July 18, 1913 | 25 | 50 | 50 |
| Theodore Sprague | 396 | Jamaica Bay | 1.4 | Mar. 19, 1910 | Mar. 19, 1935 | 2 00 | 2 80 | 35 |
| George S. Smith | 397 | Jamaica Bay | .8 | Mar. 21, 1910 | Mar. 21. 1935 | 2 00 | 1 60 | 20 |
| Floyd Abrams | 398 | Jamaica Bay | 1.2 | Jan. 23, 1911 | Jan. 23, 1936 | 2 00 | 2 40 | 30 |
| Cyrus Sprague | 399 | Jamaica Bay | 1.4 | July 18, 1898 | July 18, 1913 | 25 | 35 | 35 |
| Richard H. Smith | 400 | Jamaica Bay | 10.0 | July 18, 1898 | July 18, 1913 | 25 | 2 50 | 2 50 |
| S. D. Abrams, Jr. | 401 | Jamaica Bay | 2.8 | July 18, 1898 | July 18, 1913 | 25 | 70 | 70 |
| S. D. Abrams, Jr. | 402 | Jamaica Bay | 4.0 | July 18, 1898 | July 18, 1913 | 25 | 10 | 10 |
| George H. Mott | 403 | Jamaica Bay | .4 | Sept. 13, 1898 | Sept. 13, 1913 | 25 | 10 | 10 |
| W. Elsworth Sprague | 405 | Jamaica Bay | 9.2 | Aug. 15, 1898 | Aug. 15, 1913 | 25 | 2 30 | 2 30 |
| W. Elsworth Sprague | 406 | Jamaica Bay | 7.2 | Aug. 15, 1898 | Aug. 15, 1913 | 25 | 1 80 | 1 80 |
| George H. Hicks | 407 | Jamaica Bay | 7.8 | July 18, 1898 | July 18, 1913 | 25 | 1 95 | 1 95 |
| George H. Mott | 408 | Jamaica Bay | 8.8 | Aug. 15, 1898 | Aug. 15, 1913 | 25 | 2 20 | 2 20 |
| Henry Cornell | 409 | Jamaica Bay | 4.4 | April 2, 1910 | April 2, 1935 | 2 00 | 8 00 | 1 10 |
| Herman M. Schmeelk | 411 | Jamaica Bay | 29.8 | July 18, 1898 | July 18, 1913 | 2 25 | 7 45 | 7 45 |
| Herman M. Schmeelk | 412 | Jamaica Bay | 13.8 | July 18, 1898 | July 18, 1913 | 25 | 3 45 | 3 45 |
| George T. Soper | 413 | Jamaica Bay | 7.2 | April 4, 1910 | April 4, 1935 | 2 00 | 14 40 | 1 80 |
| Charles L. Pearsall | 414 | Jamaica Bay | 3.8 | Mar. 22, 1910 | Mar. 22, 1935 | 2 00 | 7 60 | 95 |
| George W. Doughty | 415 | Jamaica Bay | 4.4 | Mar. 19, 1910 | Mar. 19, 1935 | 2 00 | 8 80 | 1 10 |

## SCHEDULE "G" — *Continued*

| NAME. | Lot No. | Location. | Acres. | Lease granted. | Lease expires | Rate of rental. | Annual rental. | Annual tax. |
|---|---|---|---|---|---|---|---|---|
| Smith Sprague | 416 | Jamaica Bay | 2.2 | Mar. 19, 1910 | Mar. 19, 1935 | $2 00 | $4 40 | $0 55 |
| Smith Sprague | 417 | Jamaica Bay | 1.6 | Mar. 19, 1910 | Mar. 19, 1935 | 2 00 | 3 20 | 40 |
| Sprague & Doughty | 418 | Jamaica Bay | 3.0 | Mar. 19, 1910 | Mar. 19, 1935 | 2 00 | 6 00 | 75 |
| Thomas Pearsall | 419 | Jamaica Bay | 3.4 | Mar. 21, 1910 | Mar. 21, 1935 | 2 00 | 6 80 | 85 |
| George T. Soper | 420 | Jamaica Bay | 6.4 | April 4, 1910 | April 4, 1935 | 2 00 | 12 80 | 1 60 |
| Charles L. Pearsall | 421 | Jamaica Bay | 15.6 | Mar. 22, 1910 | Mar. 22, 1935 | 2 00 | 31 20 | 3 90 |
| Webb Sprague | 422 | Jamaica Bay | 2.8 | Mar. 21, 1910 | Mar. 21, 1935 | 2 00 | 5 60 | 70 |
| Thomas Pearsall | 423 | Jamaica Bay | 4.6 | Mar. 21, 1910 | Mar. 21, 1935 | 2 00 | 9 20 | 1 15 |
| George H. Mott | 424 | Jamaica Bay | 2.4 | Aug. 15, 1898 | Aug. 15, 1913 | 25 | 60 | 60 |
| Webb Sprague | 425 | Jamaica Bay | 3.0 | Mar. 21, 1910 | Mar. 21, 1935 | 2 00 | 6 00 | 75 |
| Webb Sprague | 426 | Jamaica Bay | 3.0 | Mar. 21, 1910 | Mar. 21, 1935 | 2 00 | 6 00 | 75 |
| William H. Watts | 427 | Jamaica Bay | 2.2 | Jan. 26, 1911 | Jan. 26, 1936 | 2 00 | 4 40 | 55 |
| Theodore Sprague | 429 | Jamaica Bay | 7.2 | Mar. 19, 1910 | Mar. 19, 1935 | 2 00 | 14 40 | 1 80 |
| George H. Mott | 430 | Jamaica Bay | 12.6 | Sept. 13, 1898 | Sept. 13, 1913 | 25 | 5 40 | 5 40 |
| Harry C. Johnson | 431 | Jamaica Bay | 2.0 | Mar. 21, 1910 | Mar. 21, 1935 | 2 00 | 4 00 | 50 |
| George Rhinehart | 432 | Jamaica Bay | 9.2 | Mar. 21, 1910 | Mar. 21, 1935 | 2 00 | 18 40 | 2 30 |
| Ezra Sprague | 433A | Jamaica Bay | 1.6 | Mar. 19, 1910 | Mar. 19, 1935 | 2 00 | 3 20 | 40 |
| Ezra Sprague | 433B | Jamaica Bay | 1.6 | Mar. 19, 1910 | Mar. 19, 1935 | 2 00 | 3 20 | 40 |
| Ezra Sprague | 434 | Jamaica Bay | 2.4 | Mar. 19, 1910 | Mar. 19, 1935 | 2 00 | 4 80 | 60 |
| S. D. Abrams, Jr | 435 | Jamaica Bay | 3.0 | Mar. 19, 1910 | Mar. 19, 1935 | 2 00 | 6 00 | 75 |
| John R. Vail | 436 | Jamaica Bay | 12.0 | Sept. 13, 1898 | Sept. 13, 1913 | 25 | 3 00 | 3 00 |
| George T. Soper | 437 | Jamaica Bay | 5.8 | April 4, 1910 | April 4, 1935 | 2 00 | 11 60 | 1 45 |
| Smith Sprague | 438 | Jamaica Bay | 3.0 | Mar. 19, 1910 | Mar. 19, 1935 | 2 00 | 6 00 | 75 |
| Harry C. Johnson | 439 | Jamaica Bay | 3.0 | Mar. 21, 1910 | Mar. 21, 1935 | 2 00 | 6 00 | 75 |
| Samuel E. Smith | 440 | Jamaica Bay | 2.6 | Mar. 21, 1910 | Mar. 21, 1935 | 2 00 | 5 20 | 65 |
| J. Frank Smith | 441 | Jamaica Bay | 1.0 | Mar. 21, 1910 | Mar. 21, 1935 | 2 00 | 2 00 | 25 |
| Sprague & Doughty | 442 | Jamaica Bay | 5.2 | Mar. 19, 1910 | Mar. 19, 1935 | 2 00 | 10 40 | 1 30 |
| G. W. Doughty | 443 | Jamaica Bay | 4.8 | Mar. 19, 1910 | Mar. 19, 1935 | 2 00 | 9 60 | 1 20 |
| Sprague & Doughty | 444 | Jamaica Bay | 1.7 | Mar. 19, 1910 | Mar. 19, 1935 | 2 00 | 3 40 | 43 |
| W. H. Watts | 445 | Jamaica Bay | 2.8 | Jan. 26, 1911 | Jan. 26, 1936 | 2 00 | 5 60 | 70 |
| Sprague & Doughty | 447 | Jamaica Bay | 3.2 | Mar. 19, 1910 | Mar. 19, 1935 | 2 00 | 6 40 | 80 |
| Thomas Pearsall | 448 | Jamaica Bay | 1.8 | Mar. 21, 1910 | Mar. 21, 1935 | 2 00 | 3 60 | 45 |
| Warren Cornell | 449 | Jamaica Bay | 2.0 | Mar. 21, 1910 | Mar. 21, 1935 | 2 00 | 4 00 | 50 |
| T. & E Sprague | 450 | Jamaica Bay | 5.8 | Mar. 19, 1910 | Mar. 19, 1935 | 2 00 | 11 60 | 1 45 |
| Warren Cornell | 453 | Jamaica Bay | 8.6 | Mar. 22, 1910 | Mar. 22, 1935 | 2 00 | 17 20 | 2 15 |
| T. &. E. Sprague | 454 | Jamaica Bay | 9.0 | Oct. 11, 1898 | Oct. 11, 1913 | 25 | 25 | 2 25 |
| J. E. H. Bedell | 455 | Jamaica Bay | 5.4 | Feb. 4, 1911 | Feb. 4, 1936 | 2 00 | 10 80 | 1 35 |
| Simeon Watts | 456 | Jamaica Bay | 6.8 | April 8, 1910 | April 8, 1935 | 2 00 | 13 60 | 1 70 |
| William B. Dooley | 457 | Jamaica Bay | 2.0 | Mar. 16, 1911 | Mar. 16, 1936 | 2 00 | 4 00 | 50 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| T. & E. Sprague | 451 | Jamaica Bay | 5.2 | Mar. 19, 1910 | Mar. 19, 1935 | 2 00 | 10 40 | 1 30 |
| John Frederick | 458 | Jamaica Bay | 7.6 | April 8, 1910 | April 8, 1935 | 2 00 | 15 20 | 1 90 |
| Edward Dooley | 459 | Jamaica Bay | 6.6 | Mar. 18, 1911 | Mar. 18, 1936 | 2 00 | 13 20 | 1 65 |
| J. O. Watts | 460 | Jamaica Bay | 5.2 | April 8, 1910 | April 8, 1935 | 2 00 | 10 40 | 1 30 |
| Hiram Caderus | 481 | Jamaica Bay | 5.4 | April 6, 1910 | April 6, 1935 | 2 00 | 10 80 | 1 35 |
| Hannah M. Starkey | 462 | Jamaica Bay | 2.2 | July 18, 1898 | July 18, 1913 | 25 | 55 | 55 |
| William B. Dooley | 463 | Jamaica Bay | 4.0 | Mar. 16, 1911 | Mar. 16, 1936 | 2 00 | 8 00 | 1 00 |
| Monroe & Remsen | 464 | Jamaica Bay | 6.0 | May 9, 1910 | May 9, 1935 | 2 00 | 12 00 | 1 50 |
| Haviland & Odell | 465 | Jamaica Bay | 3.6 | Aug. 15, 1898 | Aug. 15, 1913 | 25 | 90 | 90 |
| New York Oyster Company | 466 | Jamaica Bay | 17.8 | July 18, 1898 | July 18, 1913 | 25 | 4 45 | 4 45 |
| Herman M. Schmeelk | 468 | Jamaica Bay | 5.4 | Oct. 11, 1898 | Oct. 11, 1913 | 25 | 1 35 | 1 35 |
| Charles S. Sofield | 469 | Jamaica Bay | 12.0 | Jan. 7, 1911 | Jan. 7, 1936 | 2 00 | 24 00 | 3 00 |
| W. Elsworth Sprague | 470 | Jamaica Bay | 33.2 | Aug. 15, 1898 | Aug. 15, 1913 | 25 | 8 30 | 8 30 |
| W. M. Remsen | 472 | Jamaica Bay | 29.6 | May 9, 1910 | May 9, 1935 | 2 00 | 59 20 | 7 40 |
| Thomas Remsen | 473 | Jamaica Bay | 8.0 | May 16, 1910 | May 16, 1935 | 2 00 | 16 00 | 2 00 |
| George S. Monroe | 474 | Jamaica Bay | 14.0 | May 9, 1910 | May 9, 1935 | 2 00 | 28 00 | 3 50 |
| James Boerum | 475 | Jamaica Bay | 6.2 | July 18, 1898 | July 18, 1913 | 25 | 1 55 | 1 55 |
| New York Oyster Company | 478 | Jamaica Bay | 2.8 | Oct. 11, 1898 | Oct. 11, 1913 | 25 | 70 | 70 |
| Rockaway Oyster Company | 480 | Jamaica Bay | 3.4 | Sept. 13, 1898 | Sept. 13, 1913 | 25 | 85 | 85 |
| Rockaway Oyster Company | 481 | Jamaica Bay | 3.2 | Sept. 13, 1898 | Sept. 13, 1913 | 25 | 80 | 80 |
| G. S. Baristed | 482 | Jamaica Bay | 6.0 | Dec. 14, 1897 | Dec. 14, 1912 | 25 | 1 50 | 1 50 |
| H. W. Schmeelk Oyster Company | 485 | Jamaica Bay | 23.2 | Mar. 9, 1910 | Mar. 9, 1935 | 2 00 | 46 40 | 5 80 |
| H. W. Schmeelk Oyster Company | 486 | Jamaica Bay | 2.8 | Mar. 9, 1910 | Mar. 9, 1935 | 2 00 | 5 60 | 70 |
| Nathanial Carman | 492 | Jamaica Bay | 5.8 | Jan. 10, 1899 | Jan. 10, 1914 | 25 | 1 45 | 1 45 |
| H. W. Schmeelk Oyster Company | 493 | Jamaica Bay | 2.8 | Mar. 9, 1910 | Mar. 9, 1935 | 2 00 | 5 60 | 70 |
| P. W. Van Ahnem | 500 | Jamaica Bay | 2.4 | Oct. 10, 1899 | Oct. 10, 1914 | 25 | 60 | 25 |
| W. R. Schenck | 501 | Jamaica Bay | 25.8 | Oct. 10, 1899 | Oct. 10, 1914 | 25 | 6 45 | 6 45 |
| H. W. Schmeelk Oyster Company | 489 | Jamaica Bay | 12.6 | Mar. 9, 1910 | Mar. 9, 1935 | 2 00 | 25 20 | 3 15 |
| A. F. Merrill | 488 | Jamaica Bay | 6.8 | Mar. 10, 1910 | Mar. 10, 1935 | 2 00 | 13 60 | 1 70 |
| Rockaway Oyster Company | 487 | Jamaica Bay | 7.8 | Jan. 10, 1899 | Jan. 10, 1914 | 25 | 1 95 | 1 95 |
| Daniel Rowland | 503 | Jamaica Bay | 3.6 | July 11, 1899 | July 11, 1914 | 25 | 90 | 90 |
| Bedell & Amberman | 505 | Jamaica Bay | 6.2 | Feb. 7, 1911 | Feb. 7, 1936 | 2 00 | 12 40 | 1 55 |
| George H. Mott | 507 | Jamaica Bay | 3.4 | Oct. 10, 1899 | Oct. 10, 1949 | 25 | 85 | 85 |
| H. M. Schmeelk | 509 | Jamaica Bay | 80.8 | May 9, 1899 | May 9, 1949 | 25 | 20 20 | 20 20 |
| W. J. Campbell | 510 | Jamaica Bay | 6.2 | Nov. 14, 1899 | Nov. 14, 1949 | 25 | 1 55 | 1 55 |
| Henry C. Quaritous | 514 | Jamaica Bay | 9.8 | Nov. 14, 1899 | Nov. 14, 1949 | 25 | 2 45 | 2 45 |
| Henry C. Quaritous | 515 | Jamaica Bay | 2.4 | Nov. 14, 1899 | Nov. 14, 1914 | 25 | 60 | 60 |
| Rockaway Oyster Company | 516 | Jamaica Bay | 7.2 | Dec. 12, 1899 | Dec. 12, 1949 | 25 | 1 80 | 1 80 |
| J. H. McCrodden | 517 | Jamaica Bay | 4.6 | Dec. 12, 1899 | Dec. 12, 1914 | 25 | 1 15 | 1 15 |
| Wyant Huffmire | 495 | Jamaica Bay | 3.6 | Sept. 21, 1909 | Sept. 21, 1934 | 2 00 | 6 00 | 75 |
| W. H. Lockwood | 925 | Jamaica Bay | 3.8 | June 13, 1899 | June 13, 1914 | 25 | 95 | 95 |
| W. R. Wilson | 518 | Jamaica Bay | 12.8 | July 11, 1899 | July 11, 1949 | 25 | 3 20 | 3 20 |
| Annie M. Van Ahnem | 519 | Jamaica Bay | 2.6 | April 4, 1911 | April 4, 1936 | 2 00 | 5 20 | 65 |
| Wansor & Whaley | 84L | Long Island Sound | 18.2 | Sept. 9, 1893 | Sept. 9, 1943 | 25 | 4 55 | 4 55 |
| W. H. Lockwood | 927 | Raritan Bay | 155.2 | Mar. 13, 1910 | Mar. 19, 1915 | 25 | 38 80 | 38 80 |
| New York Oyster Company | 930 | Raritan Bay | 49.8 | Oct. 10, 1899 | Oct. 10, 1914 | 25 | 12 45 | 12 45 |
| Sealshipt Oyster Company | 929 | Raritan Bay | 43.6 | April 11, 1899 | April 11, 1914 | 25 | 10 90 | 10 90 |
| Glenwood Oyster Company | 80L | Long Island Sound | 159.4 | Mar. 13, 1900 | Mar. 13, 1915 | 25 | 39 85 | 39 85 |
| J. H. Veerland | 521 | Jamaica Bay | 5.0 | April 11, 1900 | April 11, 1915 | 25 | 1 25 | 1 25 |
| W. R. Wilson | 520 | Jamaica Bay | 36.0 | April 11, 1900 | April 11, 1915 | 25 | 9 00 | 9 00 |

## SCHEDULE "G" — *Continued*

| NAME. | Lot No. | Location. | Acres. | Lease granted. | Lease expires. | Rate of rental | Annual rental. | Annual tax. |
|---|---|---|---|---|---|---|---|---|
| H. W. Schmeelk Oyster Company | 36 | Jamaica Bay | 5.4 | Mar. 9, 1910 | Mar. 9, 1935 | $2 00 | $10 80 | $1 35 |
| H. W. Schmeelk Oyster Company | 37 | Jamaica Bay | 3.0 | Mar. 9, 1910 | Mar. 9, 1935 | 2 00 | 6 00 | 75 |
| H. W. Schmeelk Oyster Company | 38 | Jamaica Bay | 3.4 | Mar. 9, 1910 | Mar. 9, 1935 | 2 00 | 6 80 | 85 |
| H. W. Schmeelk Oyster Company | 39 | Jamaica Bay | 4.8 | Mar. 9, 1910 | Mar. 9, 1935 | 2 00 | 9 60 | 1 20 |
| J. W. Hayward | 42 | Jamaica Bay | 1.2 | Oct. 5, 1909 | Oct. 5, 1934 | 2 00 | 2 40 | 30 |
| George Dickens | 43 | Jamaica Bay | 3.2 | Sept. 21, 1909 | Sept. 21, 1934 | 2 00 | 6 40 | 80 |
| Edward Weber | 44 | Jamaica Bay | 2.0 | Aug. 24, 1908 | Aug. 24, 1933 | 2 00 | 4 00 | 50 |
| John H. Schmeelk | 45 | Jamaica Bay | 3.6 | June 9, 1910 | June 9, 1935 | 2 00 | 7 20 | 90 |
| Edward Weber | 47 | Jamaica Bay | 5.8 | Aug. 24, 1908 | Aug. 24, 1933 | 2 00 | 11 60 | 1 45 |
| Henry Borwegen | 48 | Jamaica Bay | 2.8 | Aug. 28, 1908 | Aug. 28, 1933 | 2 00 | 5 60 | 70 |
| Henry Borwegen | 50 | Jamaica Bay | 1.6 | Aug. 28, 1908 | Aug. 28, 1933 | 2 00 | 3 20 | 40 |
| Annie M. Van Ahnem, executrix | 54 | Jamaica Bay | 3.0 | Sept. 10, 1910 | Sept. 10, 1935 | 2 00 | 6 00 | 75 |
| H. W. Schmeelk Oyster Company | 58 | Jamaica Bay | 2.4 | Mar. 9, 1910 | Mar. 9, 1935 | 2 00 | 4 80 | 60 |
| James H. Morrison | 59 | Jamaica Bay | 6.0 | Oct. 28, 1908 | Oct. 28, 1933 | 2 00 | 12 00 | 1 50 |
| Estate, Nathanial Carman | 115 | Jamaica Bay | 2.4 | Mar. 21, 1910 | Mar. 21, 1905 | 2 00 | 4 80 | 60 |
| Margaretta Artillotson | 135 | Jamaica Bay | 4.2 | May 29, 1908 | May 29, 1933 | 2 00 | 8 40 | 1 05 |
| Charles V. Baldwin | 136 | Jamaica Bay | 4.0 | May 16, 1910 | May 16, 1935 | 2 00 | 8 00 | 1 00 |
| Richard Johnson | 92 | Jamaica Bay | 1.8 | June 23, 1908 | June 23, 1933 | 2 00 | 3 60 | 45 |
| George H. Johnson | 94 | Jamaica Bay | 1.8 | Sept. 9, 1908 | Sept. 9, 1933 | 2 00 | 3 60 | 45 |
| John D. Bush | 95 | Jamaica Bay | 1.2 | Aug. 26, 1908 | Aug. 26, 1933 | 2 00 | 2 40 | 30 |
| Mary Johnson | 96 | Jamaica Bay | 3.0 | June 23, 1908 | June 23, 1933 | 2 00 | 6 00 | 75 |
| William T. Schmeelk | 98 | Jamaica Bay | 9.2 | April 28, 1910 | April 28, 1935 | 2 00 | 18 40 | 2 30 |
| H. W. Schmeelk Oyster Company | 99 | Jamaica Bay | 1.6 | Mar. 9, 1910 | Mar. 9, 1935 | 2 00 | 3 20 | 40 |
| John R. Wofield | 100 | Jamaica Bay | 2.0 | May 18, 1909 | May 18, 1934 | 2 00 | 4 00 | 50 |
| A. D. Mersereau | 102 | Jamaica Bay | 1.4 | May 18, 1909 | May 18, 1934 | 2 00 | 2 80 | 35 |
| George A. Schmeelk | 103 | Jamaica Bay | 2.2 | Mar. 23, 1910 | Mar. 23, 1935 | 2 00 | 4 40 | 55 |
| H. W. Schmeelk Oyster Company | 106 | Jamaica Bay | 1.4 | Mar. 9, 1910 | Mar. 9, 1935 | 2 00 | 2 80 | 35 |
| Charles S. Sofield | 110 | Jamaica Bay | 5.2 | Aug. 13, 1910 | Aug. 13, 1935 | 2 00 | 10 40 | 1 30 |
| A. H. Haack | 108 | Jamaica Bay | 4.2 | Aug. 24, 1908 | Aug. 24, 1933 | 2 00 | 8 40 | 1 05 |
| H. W. Schmeelk Oyster Company | 107 | Jamaica Bay | 4.8 | Mar. 9, 1910 | Mar. 9, 1935 | 2 00 | 9 60 | 1 20 |
| H. W. Schmeelk Oyster Company | 109 | Jamaica Bay | 6.6 | Mar. 9, 1910 | Mar. 9, 1935 | 2 00 | 13 20 | 1 65 |
| Benjamin Ryder | 97 | Jamaica Bay | 1.8 | Oct. 25, 1909 | Oct. 25, 1934 | 2 00 | 3 60 | 45 |
| Benjamin Ryder | 93 | Jamaica Bay | 1.8 | Oct. 25, 1909 | Oct. 25, 1934 | 2 00 | 3 60 | 45 |
| Estate, Nathaniel Carman | 116 | Jamaica Bay | .6 | Mar. 21, 1910 | Mar. 21, 1935 | 2 00 | 1 20 | 15 |
| Ferdinand Moller | 87 | Jamaica Bay | 2.0 | Aug. 26, 1908 | Aug. 26, 1933 | 2 00 | 4 00 | 50 |
| Ludwig Klee | 64 | Jamaica Bay | 1.0 | July 15, 1908 | July 15, 1933 | 2 00 | 2 00 | 25 |
| Richard Johnson | 91 | Jamaica Bay | 3.2 | June 23, 1908 | June 23, 1933 | 2 00 | 6 40 | 80 |
| Ludwig Klee | 70 | Jamaica Bay | 1.6 | July 15, 1908 | July 15, 1933 | 2 00 | 3 20 | 40 |
| Ludwig Klee | 68 | Jamaica Bay | 2.0 | July 15, 1908 | July 15, 1933 | 2 00 | 4 00 | 50 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Charles Nelson | 69 | Jamaica Bay | 20.2 | Aug. 13, 1908 | Aug. 13, 1933 | 2 00 | 40 40 | 5 05 |
| William Oelrich | 65 | Jamaica Bay | 2.0 | July 27, 1908 | July 27, 1933 | 2 00 | 4 00 | 50 |
| William Oelrich | 67 | Jamaica Bay | 3.8 | July 27, 1908 | July 27, 1933 | 2 00 | 7 60 | 95 |
| Henry Bermuster | 63 | Jamaica Bay | 6.2 | July 27, 1908 | July 27, 1933 | 2 00 | 12 40 | 1 55 |
| H. W. Schmeelk Oyster Company | 62 | Jamaica Bay | 5.2 | Mar. 9, 1910 | Mar. 10, 1935 | 2 00 | 10 40 | 1 30 |
| W. Henry Dickens | 61 | Jamaica Bay | 7.8 | Sept. 21, 1909 | Sept. 21, 1934 | 2 00 | 15 60 | 1 95 |
| Ferdinand Moller | 72 | Jamaica Bay | 2.4 | Aug. 26, 1908 | Aug. 26, 1933 | 2 00 | 4 80 | 60 |
| Ferdinand Moller | 86 | Jamaica Bay | 1.8 | Aug. 26, 1908 | Aug. 26, 1933 | 2 00 | 3 60 | 45 |
| Rockaway Oyster Company | 84 | Jamaica Bay | 3.0 | July 21, 1908 | July 21, 1933 | 2 00 | 6 00 | 75 |
| Lillian I. Whittaker | 83 | Jamaica Bay | 5.0 | Mar. 8, 1910 | Mar. 8, 1935 | 2 00 | 10 00 | 1 25 |
| John Whittaker | 82 | Jamaica Bay | 5.8 | Mar. 7, 1910 | Mar. 7, 1935 | 2 00 | 11 60 | 1 45 |
| Rockaway Oyster Company | 80 | Jamaica Bay | 4.4 | July 21, 1908 | July 21, 1933 | 2 00 | 8 80 | 1 10 |
| Rockaway Oyster Company | 79 | Jamaica Bay | 1.8 | July 30, 1908 | July 30, 1933 | 2 00 | 3 60 | 45 |
| H. W. Schmeelk Oyster Company | 78 | Jamaica Bay | 4.4 | Mar. 9, 1910 | Mar. 9, 1935 | 2 00 | 8 80 | 1 10 |
| H. W. Schmeelk Oyster Company | 76 | Jamaica Bay | 1.8 | Mar. 9, 1910 | Mar. 9, 1935 | 2 00 | 3 60 | 45 |
| H. W. Schmeelk Oyster Company | 75 | Jamaica Bay | 4.0 | June 8, 1910 | June 8, 1935 | 2 00 | 8 00 | 1 00 |
| H. W. Schmeelk Oyster Company | 74 | Jamaica Bay | 3.2 | June 8, 1910 | June 8, 1935 | 2 00 | 6 40 | 80 |
| Annie Van Ahnem, executrix | 73 | Jamaica Bay | 4.0 | Nov. 12, 1910 | Nov. 12, 1935 | 2 00 | 8 00 | 1 00 |
| John Hansen | 71 | Jamaica Bay | 2.8 | Aug. 13, 1908 | Aug. 13, 1935 | 2 00 | 70 | 70 |
| George A. Carman | 118 | Jamaica Bay | 3.4 | Mar. 8, 1910 | Mar. 8, 1935 | 2 00 | 6 80 | 85 |
| Grace L. Ryder | 119 | Jamaica Bay | .8 | Oct. 27, 1909 | Oct. 27, 1934 | 2 00 | 1 60 | 20 |
| Benjamin Ryder | 126 | Jamaica Bay | .6 | Oct. 25, 1909 | Oct. 25, 1934 | 2 00 | 1 20 | 15 |
| H. W. Schmeelk Oyster Company | 130 | Jamaica Bay | 2.4 | Mar. 9, 1910 | Mar. 9, 1935 | 2 00 | 4 80 | 60 |
| Jane Johnson | 132 | Jamaica Bay | 5.0 | Sept. 9, 1908 | Sept. 9, 1933 | 2 00 | 10 00 | 1 25 |
| Rockaway Oyster Company | 85 | Jamaica Bay | 1.8 | July 21, 1908 | July 21, 1933 | 2 00 | 3 60 | 45 |
| Julia Sofield | 140 | Jamaica Bay | 27.0 | Nov. 12, 1903 | Nov. 12, 1935 | 2 00 | 54 00 | 6 75 |
| H. W. Schmeelk Oyster Company | 141 | Jamaica Bay | 6.0 | Mar. 9, 1910 | Mar. 9, 1935 | 2 00 | 12 00 | 1 50 |
| Daniel Rowland | 143 | Jamaica Bay | 4.0 | May 27, 1908 | May 27, 1933 | 2 00 | 8 00 | 1 00 |
| H. W. Schmeelk Oyster Company | 142 | Jamaica Bay | 5.0 | Mar. 9, 1910 | Mar. 9, 1935 | 2 00 | 10 00 | 1 25 |
| C. Josephine Biggs | 144 | Jamaica Bay | 3.0 | June 1, 1908 | June 1, 1933 | 2 00 | 6 00 | 75 |
| H. W. Schmeelk Oyster Company | 145 | Jamaica Bay | 5.2 | Mar. 9, 1910 | Mar. 9, 1935 | 2 00 | 10 40 | 1 30 |
| A. F. Merrill | 146 | Jamaica Bay | 4.2 | Mar. 10, 1910 | Mar. 10, 1935 | 2 00 | 8 40 | 1 05 |
| H. W. Schmeelk Oyster Company | 147 | Jamaica Bay | 12.6 | Mar. 9, 1910 | Mar. 9, 1935 | 2 00 | 25 20 | 3 15 |
| H. W. Schmeelk Oyster Company | 148 | Jamaica Bay | 3.2 | Mar. 9, 1910 | Mar. 9, 1935 | 2 00 | 6 40 | 80 |
| C. Josephine Biggs | 149 | Jamaica Bay | 1.6 | June 17, 1908 | June 17, 1933 | 2 00 | 3 20 | 40 |
| John Biggs | 150 | Jamaica Bay | 7.2 | June 1, 1908 | June 1, 1933 | 2 00 | 14 40 | 1 80 |
| John Biggs | 151 | Jamaica Bay | .6 | July 3, 1908 | July 3, 1933 | 2 00 | 1 20 | 15 |
| Charles Demton | 152 | Jamaica Bay | 3.2 | Oct. 9, 1910 | Oct. 9, 1935 | 2 00 | 6 40 | 80 |
| Charles Demton | 153 | Jamaica Bay | 2.2 | Oct. 9, 1910 | Oct. 9, 1935 | 2 00 | 4 40 | 55 |
| C. S. Sofield | 156 | Jamaica Bay | .8 | Jan. 7, 1911 | Jan. 7, 1936 | 2 00 | 1 60 | 20 |
| Sofield & Frazer | 154 | Jamaica Bay | 1.6 | Jan. 7, 1911 | Jan. 7, 1936 | 2 00 | 3 20 | 40 |
| Rockaway Oyster Company | 158 | Jamaica Bay | 6.6 | June 26, 1908 | June 26, 1933 | 2 00 | 13 20 | 1 65 |
| W. H. Morrison | 159 | Jamaica Bay | 5.6 | May 9, 1910 | May 9, 1935 | 2 00 | 11 20 | 1 40 |
| Mary R. Behncke | 161 | Jamaica Bay | 3.8 | Aug. 18, 1909 | Aug. 18, 1934 | 2 00 | 11 60 | 1 45 |
| Sofield & Frazer | 168 | Jamaica Bay | 3.2 | Oct. 9, 1910 | Oct. 9, 1935 | 2 00 | 6 40 | 80 |
| Sofield & Frazer | 169 | Jamaica Bay | 3.2 | Oct. 9, 1910 | Oct. 9, 1935 | 2 00 | 6 40 | 80 |
| Julia Sofield | 170 | Jamaica Bay | 4.4 | Oct. 9, 1910 | Oct. 9, 1935 | 2 00 | 8 80 | 1 10 |
| Charles S. Sofield | 171 | Jamaica Bay | 2.4 | Sept. 10, 1910 | Sept. 10, 1935 | 2 00 | 4 80 | 60 |
| H. W. Schmeelk Oyster Company | 172 | Jamaica Bay | 27.2 | Mar. 9, 1910 | Mar. 9, 1935 | 2 00 | 54 40 | 6 80 |
| J. H. Veerland, Jr. | 185 | Jamaica Bay | 12.0 | June 20, 1908 | June 20, 1933 | 2 00 | 24 00 | 3 00 |

## SCHEDULE "G" — *Continued*

| NAME. | Lot No. | Location. | Acres. | Lease granted. | Lease expires. | Rate of rental. | Annual rental. | Annual tax. |
|---|---|---|---|---|---|---|---|---|
| Edward Weber | 183 | Jamaica Bay | 3.2 | Aug. 4, 1908 | Aug. 24, 1933 | $2 00 | $6 40 | $0 80 |
| W. S. Ford | 179 | Jamaica Bay | 4.4 | Mar. 16, 1910 | Mar. 16, 1935 | 2 00 | 8 80 | 1 10 |
| H. W. Schmeelk Oyster Company | 176 | Jamaica Bay | 3.8 | Mar. 9, 1910 | Mar. 10, 1935 | 2 00 | 7 60 | 95 |
| H. W. Schmeelk Oyster Company | 174 | Jamaica Bay | 5.0 | Mar. 9, 1910 | Mar. 10, 1935 | 2 00 | 10 00 | 1 25 |
| P. William Van Ahem | 205 | Jamaica Bay | 8.2 | Sept. 17, 1908 | Sept. 17, 1933 | 2 00 | 16 40 | 2 05 |
| P. William Van Ahem | 206 | Jamaica Bay | .8 | Feb. 9, 1897 | Feb. 9, 1912 | 2 00 | 20 | 20 |
| Daniel Rowland | 189 | Jamaica Bay | 2.5 | Nov. 10, 1906 | Nov. 10, 1911 | 63 | 63 | 63 |
| C. V. Baldwin | 189 | Jamaica Bay | 2.5 | Nov. 10, 1906 | Nov. 10, 1911 | 62 | 62 | 62 |
| A. F. Merrill | 200 | Jamaica Bay | 7.2 | Mar. 10, 1910 | Mar. 10, 1935 | 2 00 | 14 40 | 1 80 |
| John R. Wofield | 195 | Jamaica Bay | 2.0 | May 9, 1909 | May 9, 1934 | 2 00 | 4 00 | 50 |
| H. W. Schmeelk Oyster Company | 193 | Jamaica Bay | 3.2 | Mar. 9, 1910 | Mar. 9, 1935 | 2 00 | 6 40 | 80 |
| H. W. Schmeelk Oyster Company | 192 | Jamaica Bay | 1.2 | Mar. 9, 1910 | Mar. 9, 1935 | 2 00 | 2 40 | 30 |
| E. O. Hovey | 198 | Jamaica Bay | 41.6 | May 4, 1910 | May 4, 1935 | 2 00 | 83 20 | 10 40 |
| W. O. Baldwin | 199 | Jamaica Bay | 5.4 | May 16, 1910 | May 16, 1935 | 2 00 | 10 80 | 1 35 |
| John H. Schmeelk | 201 | Jamaica Bay | 2.8 | Nov. 10, 1896 | Nov. 10, 1911 | 70 | 70 | 70 |
| P. W. Van Ahem | 204 | Jamaica Bay | 1.0 | Sept. 17, 1908 | Sept. 17, 1933 | 2 00 | 2 00 | 25 |
| H. W. Schmeelk Oyster Company | 191 | Jamaica Bay | 1.6 | Mar. 9, 1910 | Mar. 9, 1935 | 2 00 | 3 20 | 40 |
| Henry Schumacker | 249 | Jamaica Bay | 7.0 | Oct. 12, 1897 | Oct. 12, 1912 | 1 25 | 1 75 | 1 75 |
| Benjamin Ryder | 203 | Jamaica Bay | 1.6 | Dec. 22, 1896 | Dec. 22, 1911 | 40 | 40 | 40 |
| Annie Van Ahnem | 40 | Jamaica Bay | 4.8 | Sept. 10, 1908 | Sept. 10, 1933 | 2 00 | 9 60 | 1 20 |
| Annie Oelrichs | 66 | Jamaica Bay | 5.2 | July 30, 1908 | July 30, 1933 | 2 00 | 10 40 | 1 30 |
| Carl Peers | 133 | Jamaica Bay | 3.8 | June 8, 1908 | June 8, 1933 | 2 00 | 7 60 | 95 |
| Herman Van Ahnem | 41 | Jamaica Bay | 6.4 | Sept. 2, 1908 | Sept. 2, 1933 | 2 00 | 12 80 | 1 60 |
| H. W. Schmeelk Oyster Company | 232 | Jamaica Bay | 4.0 | Mar. 9, 1910 | Mar. 9, 1935 | 2 00 | 8 00 | 1 00 |
| John Whittaker | 231 | Jamaica Bay | 4.4 | Mar. 7, 1910 | Mar. 7, 1935 | 2 00 | 8 80 | 1 10 |
| H.W. Schmeelk Oyster Company | 230 | Jamaica Bay | 5.8 | June 8, 1910 | June 8, 1935 | 2 00 | 11 60 | 1 45 |
| John Whittaker | 229 | Jamaica Bay | 10.4 | Mar. 7, 1910 | Mar. 7, 1935 | 2 00 | 20 80 | 2 60 |
| Margaret R. Tillotson | 228 | Jamaica Bay | 4.2 | June 8, 1897 | June 8, 1912 | 25 | 1 05 | 1 05 |
| E. O. Hozey | 227 | Jamaica Bay | 3.0 | May 4, 1910 | May 4, 1935 | 2 00 | 6 00 | 75 |
| H. W. Schmeelk Oyster Company | 226 | Jamaica Bay | 1.8 | Mar. 9, 1910 | Mar. 9, 1935 | 2 00 | 3 60 | 45 |
| H. W. Schmeelk Oyster Company | 225 | Jamaica Bay | 5.2 | Mar. 9, 1910 | Mar. 9, 1935 | 2 00 | 10 40 | 1 30 |
| Rockaway Oyster Company | 224 | Jamaica Bay | 2.0 | Jan. 12, 1897 | Jan. 12, 1912 | 25 | 50 | 50 |
| Charles McCrodden | 221 | Jamaica Bay | 9.4 | Oct. 12, 1897 | Oct. 12, 1912 | 25 | 2 35 | 2 35 |
| H. W. Schmeelk Oyster Company | 220 | Jamaica Bay | 4.2 | Mar. 9, 1910 | Mar. 9, 1935 | 2 00 | 8 40 | 1 05 |
| Joseph Harris | 219 | Jamaica Bay | 6.8 | June 8, 1897 | June 8, 1912 | 25 | 1 70 | 1 70 |
| George A. Carman | 218 | Jamaica Bay | 4.2 | Mar. 8, 1910 | Mar. 8, 1935 | 2 00 | 8 40 | 1 05 |
| Joseph Flaherty | 217 | Jamaica Bay | 5.4 | April 13, 1897 | April 13, 1912 | 25 | 1 35 | 1 35 |
| Carl Peers | 216 | Jamaica Bay | 2.0 | June 8, 1897 | June 8, 1912 | 25 | 50 | 50 |
| Carl Peers | 215 | Jamaica Bay | 2.8 | June 8, 1908 | June 8, 1933 | 2 00 | 5 60 | 70 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| W. H. Dickens | 213 | Jamaica Bay | 5.0 | Mar. 11, 1910 | Mar. 11, 1935 | 4 00 | 10 00 | 1 25 |
| J. H. Schmeelk | 212 | Jamaica Bay | 12.6 | Feb. 9, 1897 | Feb. 9, 1912 | 25 | 3 15 | 3 15 |
| J. H. Schmeelk | 211 | Jamaica Bay | 4.4 | April 13, 1897 | April 13, 1912 | 25 | 1 10 | 1 10 |
| George A. Schmeelk | 210 | Jamaica Bay | 10.8 | Mar. 14, 1910 | Mar. 14, 1935 | 2 00 | 21 60 | 2 70 |
| Ludwig Klee | 209 | Jamaica Bay | 13.0 | Aug. 11, 1908 | Aug. 11, 1933 | 2 00 | 26 00 | 3 25 |
| W. M. Schmeelk | 208 | Jamaica Bay | 6.4 | Jan. 4, 1909 | Jan. 4, 1934 | 2 00 | 12 80 | 1 60 |
| Sealshipt Oyster System | 207 | Jamaica Bay | 14.2 | June 20, 1911 | June 20, 1936 | 2 00 | 28 40 | 3 55 |
| J. R. Wofield | 101 | Jamaica Bay | 2.8 | May 18, 1909 | May 18, 1934 | 2 00 | 5 60 | 70 |
| James H. Abrams | 271 | Jamaica Bay | 2.4 | July 13, 1897 | July 13, 1912 | 25 | 60 | 60 |
| H. W. Schmeelk Oyster Company | 273 | Jamaica Bay | 8.8 | Mar. 9, 1910 | Mar. 9, 1935 | 2 00 | 17 60 | 2 20 |
| John Abrams | 268 | Jamaica Bay | 2.0 | Sept. 21, 1909 | Sept. 21, 1934 | 2 00 | 4 00 | 50 |
| W. H. Dickens | 250 | Jamaica Bay | 2.8 | Aug. 18, 1908 | Aug. 18, 1933 | 2 00 | 5 60 | 70 |
| Benjamin Ryder | 246 | Jamaica Bay | 2.0 | Oct. 12, 1897 | Oct. 12, 1912 | 25 | 50 | 50 |
| Emma W. Abrams | 267 | Jamaica Bay | 2.2 | Sept. 21, 1909 | Sept. 21, 1934 | 2 00 | 4 40 | 55 |
| W. A. Winant | 266 | Jamaica Bay | 6.4 | Nov. 2, 1909 | Nov. 9, 1934 | 2 00 | 12 80 | 1 60 |
| Daniel F. Huffmire | 264 | Jamaica Bay | 1.6 | Sept. 21, 1909 | Sept. 21, 1934 | 2 00 | 3 20 | 40 |
| L. L. Huffmire | 265 | Jamaica Bay | 1.4 | Sept. 21, 1909 | Sept. 21, 1934 | 2 00 | 2 80 | 35 |
| L. L. Huffmire | 263 | Jamaica Bay | 5.4 | Sept. 21, 1909 | Sept. 21, 1934 | 2 00 | 10 80 | 1 35 |
| L. L. Huffmire | 262 | Jamaica Bay | 12.4 | Sept. 21, 1909 | Sept. 21, 1934 | 2 00 | 24 80 | 3 10 |
| Willett Raynor | 261 | Jamaica Bay | 2.0 | Sept. 21, 1909 | Sept. 21, 1934 | 2 00 | 4 00 | 50 |
| Willett Raynor | 260 | Jamaica Bay | 2.8 | Oct. 21, 1909 | Oct. 1, 1934 | 2 00 | 5 60 | 70 |
| Elizabeth Denice, executrix | 259 | Jamaica Bay | 3.6 | Nov. 5, 1909 | Nov. 5, 1934 | 2 00 | 7 20 | 90 |
| Willett E. Raynor | 257 | Jamaica Bay | 4.8 | Oct. 2, 1909 | Oct. 9, 1934 | 2 00 | 9 60 | 1 20 |
| Elizabeth Denice, executrix | 258 | Jamaica Bay | 5.4 | Nov. 5, 1909 | Nov. 5, 1934 | 2 00 | 10 80 | 1 35 |
| H. W. Schmeelk Oyster Company | 276 | Jamaica Bay | 3.0 | Mar. 9, 1910 | Mar. 9, 1935 | 2 00 | 6 00 | 75 |
| Robert L. Kind | 245 | Jamaica Bay | 3.8 | June 8, 1897 | June 8, 1912 | 25 | 95 | 95 |
| Major B. Abrams | 241 | Jamaica Bay | 13.0 | June 8, 1897 | June 8, 1912 | 25 | 3 25 | 3 25 |
| George H. Johnson | 243 | Jamaica Bay | 4.2 | June 8, 1897 | June 8, 1912 | 25 | 1 05 | 1 05 |
| W. H. Abrams | 244 | Jamaica Bay | 1.4 | June 8, 1897 | June 8, 1912 | 25 | 35 | 35 |
| W. H. Abrams | 240 | Jamaica Bay | .4 | June 8, 1897 | June 8, 1912 | 25 | 10 | 10 |
| Erastus W. Seaman | 278 | Jamaica Bay | 15.2 | Nov. 9, 1897 | Nov. 9, 1912 | 25 | 3 80 | 3 80 |
| W. H. Abrams | 280 | Jamaica Bay | 1.4 | Nov. 9, 1897 | Nov. 9, 1912 | 25 | 35 | 35 |
| George A. Schmeelk | 281 | Jamaica Bay | 2.2 | Mar. 14, 1910 | Mar. 14, 1935 | 2 00 | 4 40 | 55 |
| W. J. Tillotson | 282 | Jamaica Bay | 7.6 | June 8, 1897 | June 8, 1912 | 25 | 1 90 | 1 90 |
| John F. Wight | 237 | Jamaica Bay | 3.8 | Dec. 22, 1896 | Dec. 22, 1911 | 25 | 95 | 95 |
| Sealshipt Oyster System | 913 | Raritan Bay | 42.6 | May 11, 1897 | May 11, 1912 | 25 | 10 65 | 10 65 |
| Polworth & Elsworth | 915 | Raritan Bay | 45.8 | Oct. 12, 1897 | Oct. 12, 1912 | 25 | 11 45 | 11 45 |
| New York Oyster Company | 918 | Raritan Bay | 12.8 | Jan. 11, 1898 | Jan. 11, 1913 | 25 | 3 20 | 3 20 |
| J. I. Merrill | 919 | Raritan Bay | 14.4 | Aug. 15, 1898 | Aug. 15, 1913 | 25 | 3 60 | 3 60 |
| W. H. Lockwood | 920 | Raritan Bay | 7.2 | Aug. 9, 1898 | Aug. 9, 1913 | 25 | 1 80 | 1 80 |
| Polworth & Elsworth | 917 | Raritan Bay | 11.4 | Jan. 11, 1898 | Jan. 11, 1913 | 25 | 2 85 | 2 85 |
| New York Oyster Company | 916 | Raritan Bay | 44.2 | Feb. 8, 1898 | Feb. 8, 1913 | 25 | 11 05 | 11 05 |
| Sealshipt Oyster System | 924 | Raritan Bay | 58.2 | Jan. 11, 1898 | Jan. 11, 1913 | 25 | 14 55 | 14 55 |
| John T. Ford | 289 | Jamaica Bay | 4.6 | June 14, 1898 | June 14, 1913 | 25 | 1 15 | 1 15 |
| Joseph Ryder | 288 | Jamaica Bay | 2.0 | Feb. 8, 1898 | Feb. 8, 1913 | 25 | 50 | 50 |
| John R. Wofield | 285 | Jamaica Bay | 2.8 | May 18, 1909 | May 18, 1934 | 2 00 | 5 60 | 70 |
| Walter C. Denton | 287 | Jamaica Bay | 11.4 | June 9, 1898 | June 9, 1912 | 25 | 2 85 | 2 85 |
| H. W. Schmeelk Oyster Company | 317 | Jamaica Bay | 13.2 | Feb. 8, 1898 | Feb. 8, 1913 | 25 | 3 30 | 3 30 |
| Wm. M. Schmeelk | 316 | Jamaica Bay | 8.8 | Jan. 9, 1909 | Jan. 9, 1934 | 2 00 | 17 60 | 2 20 |
| David L. Jones | 315 | Jamaica Bay | 3.4 | Feb. 8, 1898 | Feb. 8, 1913 | 25 | 85 | 85 |

## SCHEDULE "G" — *Continued*

| NAME. | Lot No. | Location. | Acres. | Lease granted. | Lease expires. | Rate of rental | Annual rental. | Annual tax. |
|---|---|---|---|---|---|---|---|---|
| John H. Schmeelk | 313 | Jamaica Bay | 9.0 | Mar. 8, 1898 | Mar. 8, 1913 | $0 25 | $2 25 | $2 25 |
| John H. Schmeelk | 314 | Jamaica Bay | 2.8 | Feb. 8, 1898 | Feb. 8, 1913 | 25 | 70 | 70 |
| John H. Schmeelk | 312 | Jamaica Bay | 9.8 | Mar. 8, 1898 | Mar. 8, 1913 | 25 | 2 45 | 2 45 |
| Henry Bermuster | 311 | Jamaica Bay | 9.2 | June 27, 1898 | June 27, 1913 | 25 | 2 30 | 2 30 |
| Henry Borwegen | 310 | Jamaica Bay | 17.0 | April 12, 1898 | April 12, 1913 | 25 | 4 25 | 4 25 |
| A. H. Haack | 309 | Jamaica Bay | 13.2 | Aug. 24, 1908 | Aug. 24, 1933 | 2 00 | 26 40 | 3 30 |
| Carl Peers | 308 | Jamaica Bay | 7.6 | Aug. 9, 1898 | Aug. 9, 1913 | 25 | 1 90 | 1 90 |
| John Hansen | 307 | Jamaica Bay | 10.2 | Nov. 16, 1908 | Nov. 16, 1933 | 2 00 | 2 40 | 2 55 |
| J. H. Schmeelk | 305 | Jamaica Bay | 2.2 | April 12, 1898 | April 12, 1913 | 25 | 55 | 55 |
| Annie N. Van Ahnem | 304 | Jamaica Bay | 11.4 | April 4, 1911 | April 4, 1936 | 2 00 | 22 80 | 2 85 |
| William Oelrichs | 303 | Jamaica Bay | 3.0 | June 27, 1898 | June 27, 1913 | 25 | 75 | 75 |
| William Oelrichs | 302 | Jamaica Bay | 10.2 | July 27, 1908 | July 27, 1933 | 2 00 | 20 40 | 2 55 |
| E. Otis Hovey | 301 | Jamaica Bay | 14.8 | May 4, 1910 | May 4, 1935 | 2 00 | 29 60 | 3 70 |
| James W. Barne | 300 | Jamaica Bay | 7.2 | Feb. 8, 1898 | Feb. 8, 1913 | 25 | 1 80 | 1 80 |
| Richard L. Klee | 298 | Jamaica Bay | 1.4 | May 10, 1898 | May 10, 1913 | 25 | 35 | 35 |
| Ferdinand Moller | 297 | Jamaica Bay | 2.0 | Aug. 26, 1908 | Aug. 26, 1933 | 2 00 | 4 00 | 50 |
| Ferdinand Moller | 296 | Jamaica Bay | 2.4 | Aug. 26, 1908 | Aug. 26, 1933 | 2 00 | 4 80 | 60 |
| John H. Abrams | 295 | Jamaica Bay | 1.4 | Aug. 9, 1898 | Aug. 9, 1913 | 25 | 35 | 35 |
| John H. Abrams | 294 | Jamaica Bay | 3.8 | Aug. 9, 1898 | Aug. 9, 1913 | 25 | 95 | 95 |
| Sealshipt Oyster System | 327 | Jamaica Bay | 11.6 | June 20, 1911 | June 20, 1936 | 2 00 | 23 20 | 2 90 |
| H. W. Schmeelk Oyster Company | 328 | Jamaica Bay | 5.4 | Mar. 9, 1910 | Mar. 9, 1935 | 2 00 | 10 80 | 1 35 |
| H. W. Schmeelk Oyster Company | 335 | Jamaica Bay | 6.6 | Mar. 9, 1910 | Mar. 9, 1935 | 2 00 | 13 20 | 1 65 |
| Rockaway Oyster Company | 332 | Jamaica Bay | 5.8 | July 21, 1908 | July 21, 1933 | 2 00 | 11 60 | 1 45 |
| Robert W. Hoyt | 334 | Jamaica Bay | 1.0 | June 27, 1898 | June 27, 1913 | 25 | 25 | 25 |
| H. W. Schmeelk Oyster Company | 337 | Jamaica Bay | 6.6 | Mar. 9, 1910 | Mar. 9, 1935 | 2 00 | 13 20 | 1 65 |
| Charles E. Denton | 340 | Jamaica Bay | 8.2 | June 14, 1898 | June 14, 1913 | 25 | 2 05 | 2 05 |
| Ella Sofield | 90 | Jamaica Bay | 22.6 | Nov. 12, 1910 | Nov. 12, 1935 | 2 00 | 45 20 | 5 65 |
| Charles E. Denton | 341 | Jamaica Bay | 5.4 | May 10, 1898 | May 10, 1913 | 25 | 1 35 | 1 35 |
| Henry W. Davis | 343 | Jamaica Bay | 10.6 | Jan. 11, 1898 | Jan. 11, 1913 | 25 | 2 65 | 2 65 |
| Walter C. Denton | 344 | Jamaica Bay | 4.4 | May 10, 1898 | May 10, 1913 | 25 | 1 10 | 1 10 |
| Daniel Rowland | 345B | Jamaica Bay | 5.6 | May 9, 1910 | May 9, 1935 | 12 00 | 11 20 | 1 40 |
| William H. Morrison | 345A | Jamaica Bay | 3.4 | May 9, 1910 | May 9, 1935 | 2 00 | 6 80 | 85 |
| Daniel Rowland | 346 | Jamaica Bay | 3.4 | May 27, 1908 | May 27, 1933 | 2 00 | 6 80 | 45 |
| Rockaway Oyster Company | 347 | Jamaica Bay | 19.8 | Jan. 11, 1898 | Jan. 11, 1913 | 25 | 4 95 | 4 95 |
| Henry L. Schmeelk | 318 | Jamaica Bay | 5.0 | Dec. 14, 1897 | Dec. 14, 1912 | 25 | 1 25 | 1 25 |
| P. W. Van Ahnem | 319 | Jamaica Bay | 9.6 | Dec. 14, 1897 | Dec. 14, 1912 | 25 | 2 40 | 2 40 |
| F. A. Brimlow | 320 | Jamaica Bay | 3.4 | Mar. 8, 1898 | Mar. 8, 1913 | 25 | 85 | 85 |
| H. W. Schmeelk Oyster Company | 351 | Jamaica Bay | 8.0 | Mar. 9, 1910 | Mar. 9, 1935 | 2 00 | 16 00 | 2 00 |
| Wynant Huffmire | 355 | Jamaica Bay | 7.2 | Sept. 21, 1909 | Sept. 21, 1934 | 2 00 | 14 40 | 1 80 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Harry C. Johnson | 361 | Jamaica Bay | 2.0 | Mar. 21, 1910 | Mar. 21, 1935 | 2 00 | 4 00 | 50 |
| Valentine Smith | 362 | Jamaica Bay | 3.6 | Mar. 21, 1910 | Mar. 21, 1935 | 2 00 | 7 20 | 90 |
| Valentine Smith | 365 | Jamaica Bay | 2.0 | Mar. 21, 1910 | Mar. 21, 1935 | 2 00 | 4 00 | 50 |
| E. & T. Sprague | 366 | Jamaica Bay | 1.2 | Mar. 19, 1910 | Mar. 19, 1935 | 2 00 | 2 40 | 30 |
| Haviland & Odell | 368 | Jamaica Bay | 4.6 | Aug. 15, 1898 | Aug. 15, 1913 | 25 | 1 15 | 1 15 |
| Cornell & Palmer | 369 | Jamaica Bay | 12.0 | Jan. 17, 1911 | Jan. 17, 1936 | 2 00 | 24 00 | 3 00 |
| Richard H. Smith | 371 | Jamaica Bay | 6.2 | July 18, 1898 | July 18, 1913 | 25 | 1 55 | 1 55 |
| Warren Cornell | 372 | Jamaica Bay | 5.0 | Mar. 22, 1910 | Mar. 22, 1935 | 2 00 | 10 00 | 1 25 |
| W. E. Sprague | 373 | Jamaica Bay | 4.4 | July 18, 1898 | July 18, 1913 | 25 | 1 10 | 1 10 |
| W. E. Sprague | 374 | Jamaica Bay | 14.6 | July 18, 1898 | July 18, 1913 | 25 | 3 65 | 3 65 |
| Ezra Sprague | 375 | Jamaica Bay | 1.2 | Mar. 19, 1910 | Mar. 19, 1935 | 2 00 | 2 40 | 30 |
| George H. Hicks | 376 | Jamaica Bay | 2.0 | July 18, 1898 | July 18, 1913 | 25 | 50 | 50 |
| George W. Doughty | 377 | Jamaica Bay | 2.0 | Mar. 19, 1910 | Mar. 19, 1935 | 2 00 | 4 00 | 50 |
| George H. Hicks | 378 | Jamaica Bay | 3.2 | July 18, 1898 | July 18, 1913 | 25 | 80 | 80 |
| Sprague & Doughty | 379 | Jamaica Bay | 1.8 | July 18, 1898 | July 18, 1913 | 2 00 | 3 60 | 45 |
| Sprague & Doughty | 380 | Jamaica Bay | .8 | Mar. 19, 1910 | Mar. 19, 1935 | 2 00 | 1 60 | 20 |
| Sprague & Doughty | 381 | Jamaica Bay | 3.4 | Mar. 19, 1910 | Mar. 19, 1935 | 2 00 | 6 80 | 85 |
| Sprague & Doughty | 382 | Jamaica Bay | 2.4 | Mar. 19, 1910 | Mar. 19, 1935 | 2 00 | 4 80 | 60 |
| George W. Doughty | 383 | Jamaica Bay | 5.0 | Mar. 19, 1910 | Mar. 19, 1935 | 2 00 | 10 00 | 1 25 |
| Joseph Ryder | 383 | Jamaica Bay | 9.0 | Mar. 8, 1898 | Mar. 8, 1913 | 25 | 2 25 | 2 25 |
| S. Samuel B. Abrams | 384 | Jamaica Bay | 2.6 | Mar. 19, 1910 | Mar. 19, 1935 | 2 00 | 5 20 | 65 |
| J. F. & S. E. Smith | 385 | Jamaica Bay | 3.0 | Mar. 21, 1910 | Mar. 21, 1935 | 2 00 | 6 00 | 75 |
| George W. Doughty | 386 | Jamaica Bay | 1.8 | Mar. 19, 1910 | Mar. 19, 1935 | 2 00 | 3 60 | 45 |
| Sprague & Doughty | 387 | Jamaica Bay | 13.8 | Mar. 19, 1910 | Mar. 19, 1935 | 2 00 | 27 60 | 3 45 |
| Smith Sprague | 388 | Jamaica Bay | 3.6 | Mar. 19, 1910 | Mar. 19, 1935 | 2 00 | 7 20 | 90 |
| Smith Sprague | 390 | Jamaica Bay | 4.0 | Mar. 19, 1910 | Mar. 19, 1935 | 2 00 | 8 00 | 1 00 |
| A. F. Merrill | 391 | Jamaica Bay | 2.0 | Mar. 10, 1910 | Mar. 10, 1935 | 2 00 | 4 00 | 50 |
| A. F. Merrill | 392 | Jamaica Bay | 1.6 | Mar. 10, 1910 | Mar. 10, 1935 | 2 00 | 3 20 | 40 |
| Smith Sprague | 393 | Jamaica Bay | 1.6 | Mar. 19, 1910 | Mar. 19, 1935 | 2 00 | 3 20 | 40 |
| Smith Sprague | 394 | Jamaica Bay | 1.8 | Mar. 19, 1910 | Mar. 19, 1935 | 2 00 | 3 60 | 45 |
| George H. Mott | 395 | Jamaica Bay | 2.0 | July 18, 1898 | July 18, 1913 | 25 | 50 | 50 |
| Gustave Albright | 395 | Jamaica Bay | 2.0 | July 18, 1898 | July 18, 1913 | 25 | 50 | 50 |
| Theodore Sprague | 396 | Jamaica Bay | 1.4 | Mar. 19, 1910 | Mar. 19, 1935 | 2 00 | 2 80 | 35 |
| George S. Smith | 397 | Jamaica Bay | .8 | Mar. 21, 1910 | Mar. 21. 1935 | 2 00 | 1 60 | 20 |
| Floyd Abrams | 398 | Jamaica Bay | 1.2 | Jan. 23, 1911 | Jan. 23, 1936 | 2 00 | 2 40 | 30 |
| Cyrus Sprague | 399 | Jamaica Bay | 1.4 | July 18, 1898 | July 18, 1913 | 25 | 35 | 35 |
| Richard H. Smith | 400 | Jamaica Bay | 10.0 | July 18, 1898 | July 18, 1913 | 25 | 2 50 | 2 50 |
| S. D. Abrams, Jr. | 401 | Jamaica Bay | 2.8 | July 18, 1898 | July 18, 1913 | 25 | 70 | 70 |
| S. D. Abrams, Jr. | 402 | Jamaica Bay | 4.0 | July 18, 1898 | July 18, 1913 | 25 | 10 | 10 |
| George H. Mott | 403 | Jamaica Bay | .4 | Sept. 13, 1898 | Sept. 13, 1913 | 25 | 10 | 10 |
| W. Elsworth Sprague | 405 | Jamaica Bay | 9.2 | Aug. 15, 1898 | Aug. 15, 1913 | 25 | 2 30 | 2 30 |
| W. Elsworth Sprague | 406 | Jamaica Bay | 7.2 | Aug. 15, 1898 | Aug. 15, 1913 | 25 | 1 80 | 1 80 |
| George H. Hicks | 407 | Jamaica Bay | 7.8 | July 18, 1898 | July 18, 1913 | 25 | 1 95 | 1 95 |
| George H. Mott | 408 | Jamaica Bay | 8.8 | Aug. 15, 1898 | Aug. 15, 1913 | 25 | 2 20 | 2 20 |
| Henry Cornell | 409 | Jamaica Bay | 4.4 | April 2, 1910 | April 2, 1935 | 2 00 | 8 00 | 1 10 |
| Herman M. Schmeelk | 411 | Jamaica Bay | 29.8 | July 18, 1898 | July 18, 1913 | 2 25 | 7 45 | 7 45 |
| Herman M. Schmeelk | 412 | Jamaica Bay | 13.8 | July 18, 1898 | July 18, 1913 | 25 | 3 45 | 3 45 |
| George T. Soper | 413 | Jamaica Bay | 7.2 | April 4, 1910 | April 4, 1935 | 2 00 | 14 40 | 1 80 |
| Charles L. Pearsall | 414 | Jamaica Bay | 3.8 | Mar. 22, 1910 | Mar. 22, 1935 | 2 00 | 7 60 | 95 |
| George W. Doughty | 415 | Jamaica Bay | 4.4 | Mar. 19, 1910 | Mar. 19, 1935 | 2 00 | 8 80 | 1 10 |

## SCHEDULE "G" — *Continued*

| NAME. | Lot No. | Location. | Acres. | Lease granted. | Lease expires | Rate of rental. | Annual rental. | Annual tax. |
|---|---|---|---|---|---|---|---|---|
| Smith Sprague | 416 | Jamaica Bay | 2.2 | Mar. 19, 1910 | Mar. 19, 1935 | $2 00 | $4 40 | $0 55 |
| Smith Sprague | 417 | Jamaica Bay | 1.6 | Mar. 19, 1910 | Mar. 19, 1935 | 2 00 | 3 20 | 40 |
| Sprague & Doughty | 418 | Jamaica Bay | 3.0 | Mar. 19, 1910 | Mar. 19, 1935 | 2 00 | 6 00 | 75 |
| Thomas Pearsall | 419 | Jamaica Bay | 3.4 | Mar. 21, 1910 | Mar. 21, 1935 | 2 00 | 6 80 | 85 |
| George T. Soper | 420 | Jamaica Bay | 6.4 | April 4, 1910 | April 4, 1935 | 2 00 | 12 80 | 1 60 |
| Charles L. Pearsall | 421 | Jamaica Bay | 15.6 | Mar. 22, 1910 | Mar. 22, 1935 | 2 00 | 31 20 | 3 90 |
| Webb Sprague | 422 | Jamaica Bay | 2.8 | Mar. 21, 1910 | Mar. 21, 1935 | 2 00 | 5 60 | 70 |
| Thomas Pearsall | 423 | Jamaica Bay | 4.6 | Mar. 21, 1910 | Mar. 21, 1935 | 2 00 | 9 20 | 1 15 |
| George H. Mott | 424 | Jamaica Bay | 2.4 | Aug. 15, 1898 | Aug. 15, 1913 | 25 | 60 | 60 |
| Webb Sprague | 425 | Jamaica Bay | 3.0 | Mar. 21, 1910 | Mar. 21, 1935 | 2 00 | 6 00 | 75 |
| Webb Sprague | 426 | Jamaica Bay | 3.0 | Mar. 21, 1910 | Mar. 21, 1935 | 2 00 | 6 00 | 75 |
| William H. Watts | 427 | Jamaica Bay | 2.2 | Jan. 26, 1911 | Jan. 26, 1936 | 2 00 | 4 40 | 55 |
| Theodore Sprague | 429 | Jamaica Bay | 7.2 | Mar. 19, 1910 | Mar. 19, 1935 | 2 00 | 14 40 | 1 80 |
| George H. Mott | 430 | Jamaica Bay | 12.6 | Sept. 13, 1898 | Sept. 13, 1913 | 25 | 5 40 | 5 40 |
| Harry C. Johnson | 431 | Jamaica Bay | 2.0 | Mar. 21, 1910 | Mar. 21, 1935 | 2 00 | 4 00 | 50 |
| George Rhinehart | 432 | Jamaica Bay | 9.2 | Mar. 21, 1910 | Mar. 21, 1935 | 2 00 | 18 40 | 2 30 |
| Ezra Sprague | 433A | Jamaica Bay | 1.6 | Mar. 19, 1910 | Mar. 19, 1935 | 2 00 | 3 20 | 40 |
| Ezra Sprague | 433B | Jamaica Bay | 1.6 | Mar. 19, 1910 | Mar. 19, 1935 | 2 00 | 3 20 | 40 |
| Ezra Sprague | 434 | Jamaica Bay | 2.4 | Mar. 19, 1910 | Mar. 19, 1935 | 2 00 | 4 80 | 60 |
| S. D. Abrams, Jr. | 435 | Jamaica Bay | 3.0 | Mar. 19, 1910 | Mar. 19, 1935 | 2 00 | 6 00 | 75 |
| John R. Vail | 436 | Jamaica Bay | 12.0 | Sept. 13, 1898 | Sept. 13, 1913 | 25 | 3 00 | 3 00 |
| George T. Soper | 437 | Jamaica Bay | 5.8 | April 4, 1910 | April 4, 1935 | 2 00 | 11 60 | 1 45 |
| Smith Sprague | 438 | Jamaica Bay | 3.0 | Mar. 19, 1910 | Mar. 19, 1935 | 2 00 | 6 00 | 75 |
| Harry C. Johnson | 439 | Jamaica Bay | 3.0 | Mar. 21, 1910 | Mar. 21, 1935 | 2 00 | 6 00 | 75 |
| Samuel E. Smith | 440 | Jamaica Bay | 2.6 | Mar. 21, 1910 | Mar. 21, 1935 | 2 00 | 5 20 | 65 |
| J. Frank Smith | 441 | Jamaica Bay | 1.0 | Mar. 21, 1910 | Mar. 21, 1935 | 2 00 | 2 00 | 25 |
| Sprague & Doughty | 442 | Jamaica Bay | 5.2 | Mar. 19, 1910 | Mar. 19, 1935 | 2 00 | 10 40 | 1 30 |
| G. W. Doughty | 443 | Jamaica Bay | 4.8 | Mar. 19, 1910 | Mar. 19, 1935 | 2 00 | 9 60 | 1 20 |
| Sprague & Doughty | 444 | Jamaica Bay | 1.7 | Mar. 19, 1910 | Mar. 19, 1935 | 2 00 | 3 40 | 43 |
| W. H. Watts | 445 | Jamaica Bay | 2.8 | Jan. 26, 1911 | Jan. 26, 1936 | 2 00 | 5 60 | 70 |
| Sprague & Doughty | 447 | Jamaica Bay | 3.2 | Mar. 19, 1910 | Mar. 19, 1935 | 2 00 | 6 40 | 80 |
| Thomas Pearsall | 448 | Jamaica Bay | 1.8 | Mar. 21, 1910 | Mar. 21, 1935 | 2 00 | 3 60 | 45 |
| Warren Cornell | 449 | Jamaica Bay | 2.0 | Mar. 21, 1910 | Mar. 21, 1935 | 2 00 | 4 00 | 50 |
| T. & E Sprague | 450 | Jamaica Bay | 5.8 | Mar. 19, 1910 | Mar. 19, 1935 | 2 00 | 11 60 | 1 45 |
| Warren Cornell | 453 | Jamaica Bay | 8.6 | Mar. 22, 1910 | Mar. 22, 1935 | 2 00 | 17 20 | 2 15 |
| T. & E. Sprague | 454 | Jamaica Bay | 9.0 | Oct. 11, 1898 | Oct. 11, 1913 | 25 | 25 | 2 25 |
| J. E. H. Bedell | 455 | Jamaica Bay | 5.4 | Feb. 4, 1911 | Feb. 4, 1936 | 2 00 | 10 80 | 1 35 |
| Simeon Watts | 456 | Jamaica Bay | 6.8 | April 8, 1910 | April 8, 1935 | 2 00 | 13 60 | 1 70 |
| William B. Dooley | 457 | Jamaica Bay | 2.0 | Mar. 16, 1911 | Mar. 16, 1936 | 2 00 | 4 00 | 50 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| T. & E. Sprague | 451 | Jamaica Bay | 5.2 | Mar. 19, 1910 | Mar. 19, 1935 | 2 00 | 10 40 | 1 30 |
| John Frederick | 458 | Jamaica Bay | 7.6 | April 8, 1910 | April 8, 1935 | 2 00 | 15 20 | 1 90 |
| Edward Dooley | 459 | Jamaica Bay | 6.6 | Mar. 18, 1911 | Mar. 18, 1936 | 2 00 | 13 20 | 1 65 |
| J. O. Watts | 460 | Jamaica Bay | 5.2 | April 8, 1910 | April 8, 1935 | 2 00 | 10 40 | 1 30 |
| Hiram Caderus | 481 | Jamaica Bay | 5.4 | April 6, 1910 | April 6, 1935 | 2 00 | 10 80 | 1 35 |
| Hannah M. Starkey | 462 | Jamaica Bay | 2.2 | July 18, 1898 | July 18, 1913 | 25 | 55 | 55 |
| William B. Dooley | 463 | Jamaica Bay | 4.0 | Mar. 16, 1911 | Mar. 16, 1936 | 2 00 | 8 00 | 1 00 |
| Monroe & Remsen | 464 | Jamaica Bay | 6.0 | May 9, 1910 | May 9, 1935 | 2 00 | 12 00 | 1 50 |
| Haviland & Odell | 465 | Jamaica Bay | 3.6 | Aug. 15, 1898 | Aug. 15, 1913 | 25 | 90 | 90 |
| New York Oyster Company | 466 | Jamaica Bay | 17.8 | July 18, 1898 | July 18, 1913 | 25 | 4 45 | 4 45 |
| Herman M. Schmeelk | 468 | Jamaica Bay | 5.4 | Oct. 11, 1898 | Oct. 11, 1913 | 25 | 1 35 | 1 35 |
| Charles S. Sofield | 469 | Jamaica Bay | 12.0 | Jan. 7, 1911 | Jan. 7, 1936 | 2 00 | 24 00 | 3 00 |
| W. Elsworth Sprague | 470 | Jamaica Bay | 33.2 | Aug. 15, 1898 | Aug. 15, 1913 | 25 | 8 30 | 8 30 |
| W. M. Remsen | 472 | Jamaica Bay | 29.6 | May 9, 1910 | May 9, 1935 | 2 00 | 59 20 | 7 40 |
| Thomas Remsen | 473 | Jamaica Bay | 8.0 | May 16, 1910 | May 16, 1935 | 2 00 | 16 00 | 2 00 |
| George S. Monroe | 474 | Jamaica Bay | 14.0 | May 9, 1910 | May 9, 1935 | 2 00 | 28 00 | 3 50 |
| James Boerum | 475 | Jamaica Bay | 6.2 | July 18, 1898 | July 18, 1913 | 25 | 1 55 | 1 55 |
| New York Oyster Company | 478 | Jamaica Bay | 2.8 | Oct. 11, 1898 | Oct. 11, 1913 | 25 | 70 | 70 |
| Rockaway Oyster Company | 480 | Jamaica Bay | 3.4 | Sept. 13, 1898 | Sept. 13, 1913 | 25 | 85 | 85 |
| Rockaway Oyster Company | 481 | Jamaica Bay | 3.2 | Sept. 13, 1898 | Sept. 13, 1913 | 25 | 80 | 80 |
| G. S. Baristed | 482 | Jamaica Bay | 6.0 | Dec. 14, 1897 | Dec. 14, 1912 | 25 | 1 50 | 1 50 |
| H. W. Schmeelk Oyster Company | 485 | Jamaica Bay | 23.2 | Mar. 9, 1910 | Mar. 9, 1935 | 2 00 | 46 40 | 5 80 |
| H. W. Schmeelk Oyster Company | 486 | Jamaica Bay | 2.8 | Mar. 9, 1910 | Mar. 9, 1935 | 2 00 | 5 60 | 70 |
| Nathanial Carman | 492 | Jamaica Bay | 5.8 | Jan. 10, 1899 | Jan. 10, 1914 | 25 | 1 45 | 1 45 |
| H. W. Schmeelk Oyster Company | 493 | Jamaica Bay | 2.8 | Mar. 9, 1910 | Mar. 9, 1935 | 2 00 | 5 60 | 70 |
| P. W. Van Ahnem | 500 | Jamaica Bay | 2.4 | Oct. 10, 1899 | Oct. 10, 1914 | 25 | 60 | 25 |
| W. R. Schenck | 501 | Jamaica Bay | 25.8 | Oct. 10, 1899 | Oct. 10, 1914 | 25 | 6 45 | 6 45 |
| H. W. Schmeelk Oyster Company | 489 | Jamaica Bay | 12.6 | Mar. 9, 1910 | Mar. 9, 1935 | 2 00 | 25 20 | 3 15 |
| A. F. Merrill | 488 | Jamaica Bay | 6.8 | Mar. 10, 1910 | Mar. 10, 1935 | 2 00 | 13 60 | 1 70 |
| Rockaway Oyster Company | 487 | Jamaica Bay | 7.8 | Jan. 10, 1899 | Jan. 10, 1914 | 25 | 1 95 | 1 95 |
| Daniel Rowland | 503 | Jamaica Bay | 3.6 | July 11, 1899 | July 11, 1914 | 25 | 90 | 90 |
| Bedell & Amberman | 505 | Jamaica Bay | 6.2 | Feb. 7, 1911 | Feb. 7, 1936 | 2 00 | 12 40 | 1 55 |
| George H. Mott | 507 | Jamaica Bay | 3.4 | Oct. 10, 1899 | Oct. 10, 1949 | 25 | 85 | 85 |
| H. M. Schmeelk | 509 | Jamaica Bay | 80.8 | May 9, 1899 | May 9, 1949 | 25 | 20 20 | 20 20 |
| W. J. Campbell | 510 | Jamaica Bay | 6.2 | Nov. 14, 1899 | Nov. 14, 1949 | 25 | 1 55 | 1 55 |
| Henry C. Quaritous | 514 | Jamaica Bay | 9.8 | Nov. 14, 1899 | Nov. 14, 1949 | 25 | 2 45 | 2 45 |
| Henry C. Quaritous | 515 | Jamaica Bay | 2.4 | Nov. 14, 1899 | Nov. 14, 1914 | 25 | 60 | 60 |
| Rockaway Oyster Company | 516 | Jamaica Bay | 7.2 | Dec. 12, 1899 | Dec. 12, 1949 | 25 | 1 80 | 1 80 |
| J. H. McCrodden | 517 | Jamaica Bay | 4.6 | Dec. 12, 1899 | Dec. 12, 1914 | 25 | 1 15 | 1 15 |
| Wyant Huffmire | 495 | Jamaica Bay | 3.6 | Sept. 21, 1909 | Sept. 21, 1934 | 2 00 | 6 00 | 75 |
| W. H. Lockwood | 925 | Jamaica Bay | 3.8 | June 13, 1899 | June 13, 1914 | 25 | 95 | 95 |
| W. R. Wilson | 518 | Jamaica Bay | 12.8 | July 11, 1899 | July 11, 1949 | 25 | 3 20 | 3 20 |
| Annie M. Van Ahnem | 519 | Jamaica Bay | 2.6 | April 4, 1911 | April 4, 1936 | 2 00 | 5 20 | 65 |
| Wansor & Whaley | 84L | Long Island Sound | 18.2 | Sept. 9, 1893 | Sept. 9, 1943 | 25 | 4 55 | 4 55 |
| W. H. Lockwood | 927 | Raritan Bay | 155.2 | Mar. 13, 1910 | Mar. 19, 1915 | 25 | 38 80 | 38 80 |
| New York Oyster Company | 930 | Raritan Bay | 49.8 | Oct. 10, 1899 | Oct. 10, 1914 | 25 | 12 45 | 12 45 |
| Sealshipt Oyster Company | 929 | Raritan Bay | 43.6 | April 11, 1899 | April 11, 1914 | 25 | 10 90 | 10 90 |
| Glenwood Oyster Company | 80L | Long Island Sound | 159.4 | Mar. 13, 1900 | Mar. 13, 1915 | 25 | 39 85 | 39 85 |
| J. H. Veerland | 521 | Jamaica Bay | 5.0 | April 11, 1900 | April 11, 1915 | 25 | 1 25 | 1 25 |
| W. R. Wilson | 520 | Jamaica Bay | 36.0 | April 11, 1900 | April 11, 1915 | 25 | 9 00 | 9 00 |

## SCHEDULE "G" — *Continued*

| NAME. | Lot No. | Location. | Acres. | Lease granted. | Lease expires. | Rate of rental. | Annual rental. | Annual tax. |
|---|---|---|---|---|---|---|---|---|
| Bell, Fordam & Bell | 89L | Long Island Sound | 12.8 | Jan. 9, 1900 | Jan. 9, 1915 | $0 25 | $3 20 | $3 20 |
| J. T. Bird | 91 Sec. B. | Long Island Sound | 24.6 | April 10, 1910 | April 10, 1950 | 25 | 6 15 | 6 15 |
| Josiah Thompson | 91 | Long Island Sound | 18.2 | April 10, 1900 | April 10, 1950 | 25 | 4 55 | 4 55 |
| Alfred Jones | 92 | Long Island Sound | 25.0 | April 10, 1900 | April 10, 1950 | 25 | 6 25 | 6 25 |
| Henry Stubbs | 93A | Long Island Sound | 25.0 | April 23, 1900 | April 23, 1950 | 25 | 6 25 | 6 25 |
| E. H. Mackey | 93C | Long Island Sound | 27.0 | April 23, 1900 | April 23, 1950 | 25 | 6 75 | 6 75 |
| Whaley & Thompson | 93H | Long Island Sound | 20.2 | April 23, 1900 | April 23, 1950 | 25 | 3 95 | 3 95 |
| Charles Cowens | 93D | Long Island Sound | 15.8 | April 23, 1900 | April 23, 1950 | 25 | 3 95 | 3 95 |
| Crocker & Allen | 93G | Long Island Sound | 15.5 | April 23, 1900 | April 23, 1950 | 25 | 3 88 | 3 88 |
| Lowands & Mills | 93B | Long Island Sound | 24.4 | April 23, 1900 | April 23, 1950 | 25 | 6 10 | 6 10 |
| H. E. Mackey | 93F | Long Island Sound | 14.1 | April 23, 1900 | April 23, 1950 | 25 | 3 52 | 3 52 |
| Stubbs & Allen | 93F | Long Island Sound | 16.8 | April 23, 1900 | April 23, 1950 | 25 | 4 20 | 4 20 |
| Henry Stubbs | 94 | Long Island Sound | 8.0 | April 23, 1900 | April 23, 1950 | 25 | 2 00 | 2 00 |
| Bayles & Thorn | 95 | Long Island Sound | 62.8 | April 23, 1900 | April 23, 1950 | 25 | 15 70 | 15 70 |
| E. M. Gunn | 96 | Long Island Sound | 5.2 | June 19, 1900 | June 19, 1915 | 25 | 1 30 | 1 30 |
| J. C. Allen | 90 | Long Island Sound | 5.8 | April 10, 1900 | April 10, 1950 | 25 | 1 54 | 1 45 |
| E. H. Mackey, Jr | 90 | Long Island Sound | 34.0 | April 10, 1900 | April 10, 1950 | 25 | 8 50 | 8 50 |
| J. O. Fordham | 97L | Long Island Sound | 66.2 | July 25, 1900 | July 25, 1950 | 25 | 16 55 | 16 55 |
| John H. Schmeelk | 49 | Jamaica Bay | 7.0 | June 9, 1910 | June 9, 1935 | 2 00 | 14 00 | 1 75 |
| Charles S. Sofield | 522 | Jamaica Bay | 25.6 | Jan. 7, 1911 | Jan. 7, 1936 | 2 00 | 51 20 | 6 40 |
| Charles S. Sofield | 523 | Jamaica Bay | 1.4 | Jan. 7, 1911 | Jan. 7, 1936 | 2 00 | 2 80 | 35 |
| John Biggs | 524 | Jamaica Bay | 4.0 | June 1, 1908 | June 1, 1933 | 2 00 | 8 00 | 1 00 |
| Richard Van Houten | 525 | Jamaica Bay | 14.8 | Sept. 11, 1900 | Sept. 11, 1915 | 25 | 3 90 | 3 70 |
| Charles S. Sofield | 526 | Jamaica Bay | 20.2 | Jan. 7, 1911 | Jan. 7, 1936 | 2 00 | 40 00 | 5 00 |
| Ferdinand Moller | 530 | Jamaica Bay | 3.4 | Aug. 26, 1908 | Aug. 26, 1933 | 2 00 | 6 80 | 6 85 |
| H. W. Schmeelk Oyster Company | 532 | Jamaica Bay | 14.0 | Mar. 9, 1910 | Mar. 9, 1935 | 2 00 | 28 00 | 3 50 |
| H. W. Schmeelk Oyster Company | 533 | Jamaica Bay | 13.2 | Mar. 9, 1910 | Mar. 9, 1935 | 2 00 | 26 40 | 3 30 |
| A. F. Merrill | 535 | Jamaica Bay | 4.2 | Mar. 10, 1910 | Mar. 10, 1935 | 2 00 | 8 40 | 1 05 |
| C. S. Sofield | 536 | Jamaica Bay | 1.4 | Jan. 7, 1911 | Jan. 7, 1936 | 2 00 | 2 80 | 35 |
| Ludwig Klee | 542 | Jamaica Bay | 2.8 | July 15, 1908 | July 15, 1933 | 2 00 | 6 60 | 70 |
| New York Oyster Company | 540 | Jamaica Bay | 13.4 | Jan. 9, 1900 | Jan. 9, 1915 | 25 | 5 35 | 3 53 |
| Herman M. Schmeelk | 541 | Jamaica Bay | 26.8 | Oct. 9, 1900 | Oct. 9, 1915 | 25 | 6 70 | 6 70 |
| Henry Warren | 544 | Jamaica Bay | 9.4 | Nov. 13, 1900 | Nov. 13, 1915 | 25 | 2 35 | 2 35 |
| Polworth & Elsworth | 931 | Raritan Bay | 12.5 | Mar. 19, 1901 | Mar. 19, 1916 | 25 | 3 13 | 3 13 |
| New York Oyster Company | 932 | Raritan Bay | 11.2 | Mar. 19, 1901 | Mar. 19, 1916 | 25 | 2 80 | 2 80 |
| Charles Weber | 105L | Long Island Sound | 29.0 | June 11, 1901 | June 11, 1916 | 25 | 7 25 | 7 25 |
| Samuel Thorn | 105L | Long Island Sound | 29.0 | June 11, 1910 | June 11, 1916 | 25 | 7 25 | 7 25 |
| L. C. Jones | 104L | Long Island Sound | 25.2 | Nov. 13, 1900 | Nov. 13, 1915 | 25 | 6 30 | 6 30 |
| Thomas Pearsall | 549 | Jamaica Bay | 2.6 | June 11. 1901 | June 11. 1916 | 25 | 65 | 65 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| W. H. Morrison | 551 | Jamaica Bay | 1.2 | Aug. 13, 1901 | Aug. 13, 1916 | 25 | 30 | 30 |
| Henry Berumister | 554 | Jamaica Bay | 8.6 | July 27, 1908 | July 27, 1933 | 2 00 | 17 20 | 2 15 |
| Henry Von Twistern | 555 | Jamaica Bay | 1.2 | June 11, 1901 | June 11, 1916 | 25 | 30 | 30 |
| Charles S. Sofield | 556 | Jamaica Bay | 15.2 | Jan. 7, 1911 | Jan. 7, 1936 | 2 00 | 30 40 | 3 80 |
| Arthur Johnson | 558 | Jamaica Bay | 4.0 | Jan. 13, 1901 | Jan. 13, 1916 | 25 | 1 00 | 1 00 |
| Albert Geffken | 557 | Jamaica Bay | .8 | Aug. 10, 1908 | Aug. 10, 1933 | 2 00 | 1 60 | 20 |
| Willett E. Raynor | 561 | Jamaica Bay | 8.0 | Aug. 13, 1901 | Aug. 13, 1916 | 25 | 2 00 | 2 00 |
| Wynant Huffmire | 562 | Jamaica Bay | 5.6 | Sept. 21, 1909 | Sept. 21, 1934 | 2 00 | 11 20 | 1 40 |
| Rockaway Oyster Company | 564 | Jamaica Bay | 5.2 | May 14, 1901 | May 14, 1916 | 25 | 1 30 | 1 30 |
| Jacob Frederick | 566 | Jamaica Bay | 22.2 | June 11, 1901 | June 11, 1916 | 25 | 5 55 | 5 55 |
| H. L. C. Wenk | 567 | Jamaica Bay | 9.6 | June 11, 1901 | June 11, 1916 | 25 | 2 40 | 2 40 |
| H. L. C. Wenk | 568 | Jamaica Bay | 10.0 | April 9, 1901 | April 9, 1916 | 25 | 2 50 | 2 50 |
| H. L. C. Wenk | 569 | Jamaica Bay | 3.2 | Aug. 13, 1901 | Aug. 13, 1916 | 25 | 80 | 80 |
| Smith Sprague | 570 | Jamaica Bay | 5.0 | Mar. 19, 1910 | Mar. 19, 1935 | 2 00 | 10 00 | 1 25 |
| H. W. Schmeelk Oyster Company | 573 | Jamaica Bay | 11.0 | Sept. 10, 1901 | Sept. 10, 1916 | 25 | 2 75 | 2 75 |
| H. W. Schmeelk Oyster Company | 577 | Jamaica Bay | 3.8 | Nov. 12, 1901 | Nov. 12, 1916 | 25 | 95 | 95 |
| H. W. Schmeelk Oyster Company | 580 | Jamaica Bay | 11.4 | Nov. 12, 1901 | Nov. 12, 1916 | 25 | 2 85 | 2 85 |
| H. W. Schmeelk Oyster Company | 581 | Jamaica Bay | 5.6 | Nov. 12, 1901 | Nov. 12, 1916 | 25 | 1 40 | 1 40 |
| John R. Wofield | 582 | Jamaica Bay | 3.6 | May 18, 1909 | May 18, 1934 | 2 00 | 7 20 | 90 |
| Howard Gould | 117 | Long Island Sound | 106.0 | Aug. 12, 1902 | Aug. 12, 1917 | 25 | 26 50 | 26 50 |
| Howard Gould | 118 | Long Island Sound | 25.6 | Aug. 12, 1902 | Aug. 12, 1917 | 25 | 6 40 | 6 40 |
| J. M. Benner | 69L | Long Island Sound | 9.4 | July 8, 1902 | July 8, 1917 | 25 | 2 35 | 2 55 |
| Matinock Oyster Company | 81L | Long Island Sound | 38.4 | Dec. 10, 1901 | Dec. 10, 1916 | 25 | 9 60 | 6 60 |
| Lowands & Mills | 106 | Long Island Sound | 40.6 | Nov. 12, 1901 | Nov. 12, 1916 | 25 | 10 15 | 10 15 |
| Glenwood Oyster Company | 109L | Long Island Sound | 29.4 | Dec. 10, 1901 | Dec. 10, 1916 | 25 | 7 35 | 7 35 |
| John M. Benner | 110L | Long Island Sound | 25.8 | July 8, 1902 | July 8, 1917 | 25 | 6 45 | 6 45 |
| John M. Benner | 111L | Long Island Sound | 54.0 | Jan. 14, 1902 | Jan. 14, 1917 | 25 | 13 50 | 13 50 |
| John M. Benner | 112L | Long Island Sound | 30.4 | July 8, 1902 | July 8, 1917 | 25 | 7 60 | 7 60 |
| John M. Benner | 113L | Long Island Sound | 242.4 | Nov. 12, 1901 | Nov. 12, 1916 | 25 | 60 60 | 60 60 |
| Matinacock Oyster Company | 114L | Long Island Sound | 24.2 | Dec. 10, 1901 | Dec. 10, 1916 | 25 | 6 25 | 6 05 |
| John M. Benner | 115L | Long Island Sound | 95.4 | July 8, 1902 | July 8, 1917 | 25 | 23 85 | 23 85 |
| John M. Benner | 116L | Long Island Sound | 65.4 | Feb. 11, 1902 | Feb. 11, 1917 | 25 | 16 35 | 16 35 |
| John M. Benner | 119L | Long Island Sound | 17.6 | July 8, 1902 | July 8, 1917 | 25 | 4 40 | 4 40 |
| Pausch Bros. Oyster Company | 107 | Long Island Sound | 116.6 | Feb. 11, 1902 | Feb. 11, 1917 | 25 | 29 15 | 29 15 |
| Pausch Bros. Oyster Company | 108 | Long Island Sound | 25.0 | May 13, 1902 | May 13, 1917 | 25 | 6 25 | 6 25 |
| Polworth & Elsworth | 934 | Raritan Bay | 2.2 | Dec. 10, 1901 | Dec. 10, 1916 | 25 | 55 | 55 |
| Polworth & Elsworth | 935 | Raritan Bay | 9.2 | Dec. 10, 1901 | Dec. 10, 1916 | 25 | 2 30 | 2 30 |
| John Journeay | 937 | Raritan Bay | 2.4 | Aug. 12, 1902 | Aug. 12, 1917 | 25 | 60 | 60 |
| Alexander Fraser | 939 | Raritan Bay | .5 | July 8, 1902 | July 8, 1917 | 50 | 25 | 25 |
| L. B. Morey | 940 | Raritan Bay | 1.7 | July 8, 1902 | July 8, 1917 | 25 | 43 | 43 |
| Charles Gateson | 597 | Jamaica Bay | 13.6 | Aug. 12, 1902 | Aug. 12, 1917 | 25 | 3 40 | 3 40 |
| F. J. Lancaster | 584 | Jamaica Bay | 3.6 | May 13, 1902 | May 13, 1917 | 25 | 90 | 90 |
| E. O. Hovey | 587 | Jamaica Bay | 11.0 | May 4, 1910 | May 4, 1935 | 2 00 | 22 00 | 2 75 |
| William H. Sellers | 596 | Jamaica Bay | 7.2 | May 13, 1902 | May 13, 1917 | 25 | 1 80 | 1 80 |
| M. H. Sickman | 599 | Jamaica Bay | 7.2 | Jan. 14, 1902 | Jan. 14, 1917 | 25 | 1 80 | 1 80 |
| E. Otis Hovey | 600 | Jamaica Bay | 42.8 | May 4, 1910 | May 4, 1935 | 2 00 | 85 60 | 10 70 |
| James A. Bailey | 603 | Jamaica Bay | 33.2 | Aug. 12, 1902 | Aug. 12, 1917 | 25 | 8 30 | 8 30 |
| J. O. Carlson | 605 | Jamaica Bay | 8.8 | Mar. 11, 1902 | Mar. 11, 1917 | 25 | 2 20 | 2 20 |
| Charles McCrodden | 606 | Jamaica Bay | 9.0 | April 8, 1902 | April 8, 1917 | 25 | 2 25 | 2 25 |
| J. H. Veerland | 607 | Jamaica Bay | 10.0 | June 13, 1902 | June 13, 1917 | 25 | 2 50 | 2 50 |

## SCHEDULE "G" — *Continued*

| NAME. | Lot No. | Location. | Acres. | Lease granted. | Lease expires. | Rate of rental. | Annual rental. | Annual tax. |
|---|---|---|---|---|---|---|---|---|
| Glenwood Oyster Company | 609 | Jamaica Bay | 12.6 | Mar. 11, 1902 | Mar. 11, 1917 | $0 25 | $3 15 | $3 15 |
| George T. Soper | 611 | Jamaica Bay | 4.8 | April 4, 1910 | April 4, 1935 | 2 00 | 9 60 | 1 20 |
| George T. Soper | 614 | Jamaica Bay | 12.4 | April 4, 1910 | April 4, 1935 | 2 00 | 24 80 | 3 10 |
| New York Oyster Company | 941 | Raritan Bay | 4.8 | Nov. 10, 1901 | Nov. 10, 1916 | 25 | 1 20 | 1 20 |
| New York Oyster Company | 942 | Raritan Bay | 13.8 | Aug. 12, 1902 | Aug. 12, 1917 | 25 | 3 45 | 3 45 |
| New York Oyster Company | 943 | Raritan Bay | 50.2 | Dec. 9, 1902 | Dec. 9, 1917 | 25 | 12 55 | 12 55 |
| W. H. Lockwood | 944 | Raritan Bay | 36 0 | Dec. 9, 1902 | Dec. 9, 1917 | 25 | 9 00 | 9 00 |
| W. H. Lockwood | 945 | Raritan Bay | 39.4 | May 12, 1903 | May 12, 1918 | 25 | 9 85 | 9 85 |
| G. M. Still | 946 | Raritan Bay | 5.4 | Sept. 8, 1903 | Sept. 8, 1918 | 25 | 1 35 | 1 35 |
| G. M. Still | 947 | Raritan Bay | 1.4 | Sept. 8, 1903 | Sept. 8, 1918 | 25 | 35 | 35 |
| George W. Sanbeg | 948 | Raritan Bay | 12.8 | Dec. 9, 1902 | Dec. 9, 1917 | 25 | 3 20 | 3 20 |
| D. B. Colan | 950 | Raritan Bay | 4.8 | May 14. 1901 | May 14, 1916 | 50 | 2 40 | 2 40 |
| Ernest F. Colan | 951 | Raritan Bay | 9.2 | April 14, 1903 | April 14, 1918 | 25 | 2 30 | 2 30 |
| Ernest F. Colan | 952 | Raritan Bay | 1.6 | May 12, 1903 | May 12, 1918 | 25 | 40 | 40 |
| Elmer I. Palmer | 953 | Raritan Bay | 4.6 | Jan. 12, 1904 | Jan. 12, 1919 | 25 | 1 15 | 1 15 |
| New York Oyster Company | 955 | Raritan Bay | 42.8 | June 9, 1903 | June 9, 1918 | 25 | 10 70 | 10 70 |
| Elsworth Company | 1 | Raritan Bay | 695.6 | June 14, 1904 | June 14, 1919 | 25 | 173 90 | 173 90 |
| Pausch Bros. Oyster Company | Several. | Long Island Sound | 150.0 | May 10, 1904 | May 10, 1919 | 25 | 37 50 | 37 50 |
| Pausch Bros. Oyster Company | Several. | Long Island Sound | 62.5 | June 14, 1904 | June 14, 1919 | 25 | 15 63 | 15 63 |
| Pausch Bros. Oyster Company | Several. | Long Island Sound | 98.2 | May 10, 1904 | May 10, 1919 | 25 | 24 55 | 24 55 |
| Baylis, Bumstead & Fletcher | Several. | Long Island Sound | 180.2 | Aug. 13, 1901 | Aug. 13, 1916 | 25 | 45 05 | 45 05 |
| Pausch Bros. Oyster Company | Several. | Long Island Sound | 62.5 | Sept. 13, 1904 | Sept. 13, 1913 | 25 | 15 63 | 15 63 |
| Tillie, Tillie & Tillie | 23L | Long Island Sound | 47.3 | Aug. 11, 1904 | Aug. 11, 1915 | 25 | 11 83 | 11 83 |
| J. C. Allen | 121B | Long Island Sound | 22.0 | June 14, 1904 | June 14, 1919 | 25 | 5 50 | 5 50 |
| E. H. Mackey | 121A | Long Island Sound | 25.2 | June 14, 1904 | June 14, 1919 | 25 | 6 30 | 6 30 |
| Baylis & Thorn | 121 D & C | Long Island Sound | 43.8 | June 14, 1904 | June 14, 1919 | 25 | 10 95 | 10 95 |
| Josiah Thompson | 122L | Long Island Sound | 4.4 | April 12, 1904 | April 12, 1919 | 25 | 1 10 | 1 10 |
| Josiah Thompson | 123 | Long Island Sound | 1.4 | June 14, 1904 | June 14, 1919 | 25 | 35 | 35 |
| John C. Allen | 123 | Long Island Sound | 5.8 | June 14, 1904 | June 14, 1919 | 25 | 1 45 | 1 45 |
| New York Oyster Company | 957 | Raritan Bay | 3.0 | Jan. 12, 1904 | Jan. 12, 1919 | 25 | 75 | 75 |
| New York Oyster Company | 958 | Raritan Bay | 95.6 | Jan. 12, 1904 | Jan. 12, 1919 | 25 | 23 90 | 23 90 |
| New York Oyster Company | 959 | Raritan Bay | 10.0 | Nov. 9, 1904 | Nov. 9, 1919 | 25 | 2 50 | 2 50 |
| R. W. LaForge | 961 | Raritan Bay | 1.0 | Dec. 10, 1901 | Dec. 10, 1916 | 25 | 25 | 25 |
| New York Oyster Company | 962 | Raritan Bay | 1.0 | May 10, 1904 | May 10, 1919 | 25 | 25 | 25 |
| John M. Benner | 125L | Long Island Sound | 216.2 | May 9, 1905 | May 9, 1920 | 25 | 54 05 | 54 05 |
| John M. Brenner | 124L | Long Island Sound | 118.2 | Sept. 8, 1903 | Sept. 8, 1918 | 25 | 29 55 | 29 55 |
| New York Oyster Company | 967 | Raritan Bay | 67.0 | Aug. 8, 1905 | Aug. 8, 1920 | 30 | 20 10 | 20 10 |
| Glenwood Oyster Company | 120L | Long Island Sound | 15.8 | Dec. 10, 1901 | Dec. 10, 1916 | 25 | 3 95 | 3 95 |
| Sealshipt Oyster System | 966 | Raritan Bay | 36.4 | Nov. 10, 1903 | Nov. 10, 1918 | 25 | 9 10 | 9 10 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| New York Oyster Company | 968 | Raritan Bay | 7.4 | Dec. 12, 1905 | Dec. 12, 1928 | 1 00 | 7 40 | 1 85 |
| E. Otis Hovey | 617 | Jamaica Bay | 5.6 | May 4, 1910 | May 4, 1935 | 2 00 | 11 20 | 1 40 |
| John M. Benner | Several. | Long Island Sound | 164.4 | Dec. 12, 1905 | Dec. 12, 1920 | 25 | 41 10 | 41 10 |
| Sealshipt Oyster System | Several. | Long Island Sound | 164.4 | Dec. 12, 1905 | Dec. 12, 1920 | 25 | 41 10 | 41 10 |
| Sealshipt Oyster System | Several. | Long Island Sound | 91.2 | Dec. 12, 1905 | Dec. 12, 1920 | 25 | 22 80 | 22 80 |
| John M. Benner | Several. | Long Island Sound | 180.0 | Dec. 12, 1905 | Dec. 12, 1920 | 25 | 45 00 | 45 00 |
| Pausch Bros. Oyster Company | 127L | Long Island Sound | 17.6 | Jan. 9, 1906 | Jan. 9, 1921 | 25 | 4 40 | 4 40 |
| Peter Polworth | 971 | Raritan Bay | 54.0 | Dec. 8, 1903 | Dec. 8, 1918 | 25 | 13 50 | 13 50 |
| Polworth & Elsworth | 965 | Raritan Bay | 18.0 | Dec. 8, 1903 | Dec. 8, 1918 | 25 | 4 50 | 4 50 |
| New York Oyster Company | 970 | Raritan Bay | 8.4 | July 14, 1903 | July 14, 1918 | 25 | 2 10 | 2 10 |
| New York Oyster Company | 969 | Raritan Bay | 1.6 | Oct. 14, 1902 | Oct. 14, 1917 | 25 | 40 | 40 |
| Henry S. Marshall | 761 | Raritan Bay | 3.0 | Dec. 8, 1903 | Dec. 8, 1918 | 25 | 75 | 75 |
| Henry S. Marshall | 764 | Raritan Bay | 3.0 | Dec. 8, 1903 | Dec. 8, 1918 | 25 | 75 | 75 |
| A. S. Joline | 972 | Raritan Bay | 1.7 | July 13, 1897 | July 13, 1912 | 25 | 43 | 43 |
| Elmer I. Palmer | 897 | Raritan Bay | 32.8 | April 10, 1906 | April 10, 1921 | 25 | 8 20 | 8 20 |
| Elmer I. Palmer | 896 | Raritan Bay | 15.0 | April 10, 1906 | April 10, 1921 | 25 | 3 75 | 3 75 |
| John M. Benner | 83L | Long Island Sound | 77.0 | April 10, 1906 | April 10, 1921 | 25 | 19 25 | 19 25 |
| Sealshipt Oyster System | Several. | Long Island Sound | 88.7 | April 10, 1906 | April 10, 1921 | 25 | 22 18 | 22 18 |
| D. & H. Oyster Company | Several. | Long Island Sound | 86.0 | April 10, 1906 | April 10, 1921 | 25 | 21 50 | 21 50 |
| Adolph Johnson | Several. | Long Island Sound | 88.7 | April 10, 1906 | April 10, 1921 | 25 | 22 18 | 22 18 |
| Mills & Ronik | Several. | Long Island Sound | 258.0 | April 10, 1906 | April 10, 1921 | 25 | 64 50 | 64 50 |
| Elmer I. Palmer | 973 | Raritan Bay | 32.0 | Feb. 13, 1906 | Feb. 13, 1921 | 25 | 8 00 | 8 00 |
| James A. Devough | 235 | Pelham Bay | 12.4 | April 8, 1902 | April 8, 1917 | 25 | 3 10 | 3 10 |
| Lewis Bros | 299 | Long Island Sound | 20.6 | Sept. 11, 1900 | Sept. 11, 1915 | 25 | 5 15 | 5 51 |
| Lewis Bros | 300 | Long Island Sound | 84.2 | Sept. 11, 1900 | Sept. 11, 1915 | 25 | 21 05 | 21 05 |
| J. O. Fordham | 231 | Pelham Bay | 5.8 | June 10, 1902 | June 10, 1917 | 25 | 1 45 | 1 45 |
| John O. Fordham | 232 | Pelham Bay | 11.2 | June 10, 1902 | June 10, 1917 | 25 | 2 80 | 2 80 |
| Jacob Brady | 249 | East Chester Bay | 27.6 | April 10, 1906 | April 10, 1921 | 25 | 6 90 | 6 90 |
| J. B. Glasier | 248 | Long Island Sound | 1.8 | Mar. 11, 1902 | Mar. 11, 1917 | 25 | 45 | 45 |
| John Price, Jr. | 244 | East Chester Bay | 24.8 | April 10, 1906 | April 10, 1921 | 25 | 6 20 | 6 20 |
| Robert Lee | 250 | East Chester Bay | 9.2 | April 10, 1906 | April 10, 1921 | 25 | 2 30 | 2 30 |
| Robert Lee | 257 | East Chester Bay | 15.6 | April 10, 1906 | April 10, 1921 | 25 | 3 90 | 3 90 |
| F. C. Glasier | 245 | East Chester Bay | 23.6 | April 10, 1906 | April 10, 1921 | 25 | 5 90 | 5 90 |
| F. C. & H. A. Glasier | 246 | East Chester Bay | 2.2 | May 13, 1902 | May 13, 1917 | 25 | 55 | 55 |
| F. C. & H. A. Glasier | 237 | East Chester Bay | 16.6 | May 13, 1902 | May 13, 1917 | 25 | 4 15 | 4 15 |
| Steven Collins | 255 | Long Island Sound | 6.4 | April 8, 1902 | April 8, 1917 | 25 | 1 60 | 1 60 |
| Steven Collins | 234 | Long Island Sound | 7.2 | April 8, 1902 | April 8, 1917 | 25 | 1 80 | 1 80 |
| Steven Collins | 265 | Long Island Sound | 2.0 | April 8, 1902 | April 8, 1917 | 25 | 50 | 50 |
| W. R. Fordham | 263 | Long Island Sound | 1.4 | May 13, 1902 | May 13, 1917 | 25 | 35 | 35 |
| W. R. Fordham | 262 | Long Island Sound | 6.4 | May 13, 1902 | May 13, 1917 | 25 | 1 60 | 1 60 |
| W. R. Fordham | 261 | Long Island Sound | 6.2 | May 13, 1902 | May 13, 1917 | 25 | 1 55 | 1 55 |
| C. C. Leviness | 238 | Long Island Sound | 3.6 | Feb. 11, 1902 | Feb. 11, 1919 | 25 | 90 | 90 |
| C. C. Leviness | 230 | Long Island Sound | 2.0 | April 10, 1906 | April 10, 1921 | 25 | 50 | 50 |
| J. O. Fordham | 229 | Long Island Sound | 18.2 | April 8, 1902 | April 8, 1917 | 25 | 4 55 | 4 55 |
| John M. Bell | 269 | Long Island Sound | 9.6 | April 10, 1906 | April 10, 1921 | 25 | 2 40 | 2 40 |
| John M. Bell | 268 | Long Island Sound | 6.8 | Nov. 12, 1901 | Nov. 12, 1916 | 25 | 1 70 | 1 70 |
| John M. Bell | 251 | Long Island Sound | 6.4 | Dec. 10, 1901 | Dec. 10, 1901 | 25 | 1 60 | 1 60 |
| John M. Bell | 258 | Long Island Sound | 9.2 | April 10, 1906 | April 10, 1921 | 25 | 2 30 | 2 30 |
| Bernard Collins | 264 | Long Island Sound | 1.6 | April 8, 1902 | April 8, 1917 | 25 | 40 | 40 |
| Bernard Collins | 233 | Long Island Sound | 2.8 | April 8, 1902 | April 8, 1917 | 25 | 70 | 70 |

## SCHEDULE "G" — *Continued*

| NAME. | Lot No. | Location. | Acres. | Lease granted. | Lease expires. | Rate of rental | Annual rental. | Annual tax. |
|---|---|---|---|---|---|---|---|---|
| Benjamin Merritt | 301 | Long Island Sound | .8 | Mar. 11, 1902 | Mar. 11, 1917 | $0 25 | $0 20 | $0 20 |
| Benjamin Merritt | 302 | Long Island Sound | 1.0 | Mar. 11, 1902 | Mar. 11, 1917 | 25 | 25 | 25 |
| Benjamin Merritt | 303 | Long Island Sound | 1.4 | Mar. 11, 1902 | Mar. 11, 1917 | 25 | 35 | 35 |
| Dennis F. Ward, Sr. | 290 | Long Island Sound | 7.4 | June 12, 1906 | June 12, 1921 | 25 | 1 85 | 1 85 |
| Dennis F. Ward, Sr. | 292 | Long Island Sound | 9.0 | June 12, 1906 | June 12, 1921 | 25 | 2 25 | 2 25 |
| Oswald T. Bergen | 272 | Long Island Sound | 11.2 | Mar. 11, 1902 | Mar. 11, 1917 | 25 | 2 80 | 2 80 |
| John J. Ferry | 277 | Long Island Sound | 16.0 | April 10, 1906 | April 10, 1921 | 25 | 4 00 | 4 00 |
| John J. Ferry | 278 | Long Island Sound | 4.0 | April 10, 1906 | April 10, 1921 | 25 | 1 00 | 1 00 |
| John J. Ferry | 279 | Long Island Sound | 19.4 | April 10, 1906 | April 10, 1921 | 25 | 4 85 | 4 85 |
| John J. Ferry | 280 | Long Island Sound | 3.6 | April 10, 1906 | April 10, 1921 | 25 | 90 | 90 |
| John J. Ferry | 281 | Long Island Sound | 5.2 | April 10, 1906 | April 10, 1921 | 25 | 1 30 | 1 30 |
| John O. Fordham | 305 | Long Island Sound | 4.6 | Dec. 11, 1900 | Dec. 11, 1915 | 25 | 1 15 | 1 15 |
| Dennis Dougherty | 286 | Long Island Sound | 5.8 | April 10, 1906 | April 10, 1921 | 25 | 1 45 | 1 45 |
| Dennis Dougherty | 288 | Long Island Sound | 10.6 | April 10, 1906 | April 10, 1921 | 25 | 2 65 | 2 65 |
| W. John McGrory | 285 | Long Island Sound | 41.2 | April 10, 1906 | April 10, 1921 | 25 | 10 30 | 10 30 |
| Natinacock Oyster Company | 73L | Long Island Sound | 200.0 | Sept. 12, 1908 | Sept. 12, 1933 | 2 00 | 40 00 | 50 00 |
| John M. Benner | 72L | Long Island Sound | 122.2 | Sept. 12, 1908 | Sept. 12, 1933 | 2 00 | 244 40 | 30 55 |
| E. Otis Hovey | 618 | Jamaica Bay | 17.0 | July 14, 1908 | July 14, 1923 | 2 00 | 34 00 | 4 25 |
| Christian Hoobs | 619 | Jamaica Bay | 3.6 | July 14, 1908 | July 14, 1923 | 2 00 | 7 20 | 90 |
| H. C. Johnson | 620 | Jamaica Bay | 1.6 | July 14, 1908 | July 14, 1923 | 2 00 | 3 20 | 40 |
| Thomas Pearsall | 621 | Jamaica Bay | 3.2 | July 14, 1908 | July 14, 1923 | 2 00 | 6 40 | 80 |
| Rockaway Oyster Company | 622 | Jamaica Bay | 11.6 | July 14, 1908 | July 14, 1923 | 2 00 | 23 20 | 2 90 |
| A. F. Merrill | 974 | Raritan Bay | 1.0 | July 14, 1908 | July 14, 1923 | 2 00 | 2 00 | 25 |
| Samuel A. Walters | 308 | Long Island Sound | 4.4 | July 14, 1908 | July 14, 1923 | 2 00 | 8 80 | 1 10 |
| Daniel Berbank | 890 | Raritan Bay | 19.8 | Aug. 11, 1908 | Aug. 11, 1923 | 2 00 | 39 60 | 4 95 |
| Androvette & Thompson | 900 | Raritan Bay | 9.0 | Mar. 9, 1909 | Mar. 9, 1934 | 2 00 | 18 00 | 2 25 |
| W. H. Houghwout | 899 | Raritan Bay | 4.2 | April 10, 1909 | April 10, 1934 | 2 00 | 8 40 | 1 05 |
| J. O. Fordham | 236 | Pelham Bay | 13.0 | April 8, 1902 | April 8, 1917 | 25 | 3 25 | 3 25 |
| Sealshipt Oyster System | 688 | Raritan Bay | 3.6 | April 13, 1909 | April 13, 1924 | 2 00 | 7 20 | 90 |
| Matituck Oyster Company | Several. | Long Island Sound | 260.0 | July 14, 1908 | July 14, 1923 | 2 00 | 520 00 | 65 00 |
| John M. Benner | Several. | Long Island Sound | 420.0 | Aug. 11, 1908 | Aug. 11, 1933 | 2 00 | 840 00 | 105 00 |
| Matituck Oyster Company | Several. | Long Island Sound | 120.0 | Aug. 11, 1908 | Aug. 11, 1933 | 2 00 | 240 00 | 30 00 |
| H. W. Schmeelk Oyster Company | 624 | Jamaica Bay | 2.0 | July 14, 1908 | July 14, 1933 | 2 00 | 4 00 | 50 |
| H. W. Schmeelk Oyster Company | 623 | Jamaica Bay | 5.0 | July 14, 1908 | July 14, 1933 | 2 00 | 10 00 | 1 25 |
| A. F. Merrill | 126 | Long Island Sound | 33.6 | April 13, 1909 | April 13, 1934 | 2 00 | 67 20 | 8 40 |
| A. F. Merrill | 312 | Long Island Sound | 159.4 | April 13, 1909 | April 13, 1934 | 2 00 | 318 80 | 39 85 |
| A. F. Merrill | 313 | Long Island Sound | 126.0 | April 13, 1909 | April 13, 1934 | 2 00 | 252 00 | 51 50 |
| Rudolph Merrill | 311 | Long Island Sound | 108.0 | July 14, 1908 | July 14, 1933 | 2 00 | 216 00 | 27 00 |
| W. J. Mills | Several. | Long Island Sound | 115.0 | May 11, 1909 | May 11, 1934 | 2 00 | 230 00 | 28 75 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Oyster Bay Oyster Company | Several. | Long Island Sound | 145.0 | May 11, 1909 | May 11, 1934 | 2 00 | 290 00 | 36 25 |
| W. J. Mills | Several. | Long Island Sound | 110.0 | May 11, 1909 | May 11, 1934 | 2 00 | 220 00 | 27 50 |
| Oyster Bay Oyster Company | Several. | Long Island Sound | 130.0 | May 11, 1909 | May 11, 1934 | 2 00 | 260 00 | 32 50 |
| Stratford Oyster Company | Several. | Long Island Sound | 65.0 | June 8, 1909 | June 8, 1924 | 2 00 | 130 00 | 16 25 |
| Sealshipt Oyster System | Several. | Long Island Sound | 65.0 | June 8, 1909 | June 8, 1924 | 2 00 | 130 00 | 16 25 |
| W. J. Mills | 314 | Long Island Sound | 20.0 | June 8, 1909 | June 8, 1924 | 2 00 | 40 00 | 5 00 |
| Matituck Oyster Company | Several. | Long Island Sound | 60.0 | July 13, 1909 | July 13, 1924 | 2 00 | 120 00 | 15 00 |
| J. M. Benner | Several. | Long Island Sound | 150.0 | July 13, 1909 | July 13, 1924 | 2 00 | 300 00 | 37 50 |
| J. M. Benner | Several. | Long Island Sound | 342.2 | July 13, 1909 | July 13, 1924 | 2 00 | 685 00 | 85 65 |
| Matituck Oyster Company | Several. | Long Island Sound | 17.4 | July 13, 1909 | July 13, 1924 | 2 00 | 34 80 | 4 35 |
| C. P. Veerland | 608 | Jamaica Bay | 4.4 | Oct. 19, 1909 | Oct. 19, 1924 | 2 00 | 8 40 | 1 05 |
| W. J. Hewlett | 539 | Jamaica Bay | 8.4 | Oct. 19, 1909 | Oct. 19, 1924 | 2 00 | 16 80 | 2 10 |
| Henry W. Davis | 506 | Jamaica Bay | 5.6 | Oct. 19, 1909 | Oct. 19, 1924 | 2 00 | 11 20 | 1 40 |
| Henry W. Davis | 329 | Jamaica Bay | 7.4 | Oct. 19, 1909 | Oct. 19, 1924 | 2 00 | 14 80 | 1 85 |
| J. H. Vreeland, Jr | 633 | Jamaica Bay | 5.8 | Oct. 19, 1909 | Oct. 19, 1924 | 2 00 | 11 60 | 1 45 |
| J. H. Schmeelk | 632 | Jamaica Bay | .8 | Oct. 19, 1909 | Oct. 19, 1924 | 2 00 | 1 60 | 20 |
| Jarvis Hicks | 629 | Jamaica Bay | .4 | Aug. 11, 1908 | Aug. 11, 1923 | 2 00 | 80 | 10 |
| Jarvis Hicks | 630 | Jamaica Bay | 1.2 | Aug. 11, 1908 | Aug. 11, 1923 | 2 00 | 2 40 | 30 |
| Richard Biggs, Sr | 627 | Jamaica Bay | 3.2 | July 14, 1908 | July 14, 1923 | 2 00 | 6 40 | 80 |
| Nathaniel E. Davis | 626 | Jamaica Bay | 1.2 | May 11, 1909 | May 11, 1924 | 2 00 | 2 40 | 30 |
| Nathaniel E. Davis | 625 | Jamaica Bay | 3.2 | May 11, 1909 | May 11, 1924 | 2 00 | 6 40 | 80 |
| Major G. Abrams | 628 | Jamaica Bay | .6 | April 13, 1909 | April 13, 1924 | 2 00 | 1 20 | 15 |
| William R. Rhinehart | 635 | Jamaica Bay | 2.8 | July 13, 1909 | July 13, 1924 | 2 00 | 5 60 | 70 |
| William R. Rhinehart | 636 | Jamaica Bay | 3.2 | July 13, 1909 | July 13, 1924 | 2 00 | 6 40 | 80 |
| Sealshipt Oyster System | Several. | Jamaica Bay | 60.0 | June 8, 1909 | June 8, 1924 | 2 00 | 120 00 | 15 00 |
| William Ruddock | 239 | Jamaica Bay | 6.0 | Nov. 12, 1901 | Nov. 12, 1916 | 25 | 1 50 | 1 50 |
| Henry Schlachtenberg | 238 | Jamaica Bay | 4.0 | Nov. 9, 1909 | Nov. 9, 1924 | 2 00 | 8 00 | 1 60 |
| R. W. LaForge | 462 | Raritan Bay | 1.2 | July 13, 1909 | July 13, 1923 | 2 00 | 2 40 | 30 |
| Matituck Oyster Company | Several. | Long Island Sound | 65.0 | Nov. 9, 1909 | Nov. 9, 1923 | 2 00 | 1 30 | 16 25 |
| F. C. Glasier | 309 | East Chester Bay | 6.2 | Oct. 13, 1908 | Oct. 13, 1923 | 2 00 | 12 40 | 1 55 |
| New York Oyster Company | 3 | Hudson River | 67.6 | June 8, 1909 | June 8, 1924 | 2 00 | 135 20 | 16 90 |
| New York Oyster Company | 4 | Hudson River | 6.6 | Sept. 8, 1908 | Sept. 8, 1923 | 2 00 | 13 20 | 1 65 |
| New York Oyster Company | 2 | Hudson River | 167.0 | July 14, 1908 | July 14, 1923 | 2 00 | 334 00 | 41 75 |
| Pausch Bros. Oyster Company | 315 | Long Island Sound | 35.6 | Mar. 8, 1910 | Mar. 8, 1925 | 2 00 | 71 20 | 8 90 |
| E. O. Hovey | 618 | Jamaica Bay | 17.0 | May 4, 1910 | May 4, 1935 | 2 00 | 34 00 | 4 25 |
| A. F. Merrill | 316 | Long Island Sound | 57.0 | May 10, 1910 | May 10, 1925 | 2 00 | 114 00 | 14 25 |
| Pausch Bros. Oyster Company | 977 | Raritan Bay | 144.0 | April 12, 1910 | April 12, 1925 | 2 00 | 288 00 | 36 00 |
| New York Oyster Company | 975 | Raritan Bay | 32.0 | Mar. 8, 1910 | Mar. 8, 1925 | 2 00 | 64 00 | 8 00 |
| R. W. LaForge | 976 | Raritan Bay | 10.0 | Mar. 8, 1910 | Mar. 8, 1925 | 2 00 | 20 00 | 2 50 |
| F. F. Downs | Several. | Long Island Sound | 40.0 | July 12, 1910 | July 12, 1935 | 2 00 | 80 00 | 10 00 |
| F. F. Downs | Several. | Long Island Sound | 60.0 | July 12, 1910 | July 12, 1935 | 2 00 | 120 00 | 15 00 |
| Merrill & Berbank | 933 | Raritan Bay | 44.4 | Aug. 9, 1910 | Aug. 9, 1925 | 2 00 | 88 80 | 11 10 |
| Merrill & Berbank | 928 | Raritan Bay | 25.0 | Aug. 9, 1910 | Aug. 9, 1925 | 2 00 | 50 00 | 6 25 |
| W. H. Houghwout | 978 | Raritan Bay | 5.0 | May 9, 1905 | May 9, 1920 | 25 | 1 25 | 1 25 |
| G. H. Valentine | 981 | Raritan Bay | 11.4 | May 10, 1910 | May 10, 1925 | 2 00 | 22 80 | 2 85 |
| Androvette & Thompson | 979 | Raritan Bay | 20.0 | July 12, 1910 | July 12, 1925 | 2 00 | 40 00 | 5 00 |
| Androvette & Thompson | 980 | Raritan Bay | 23.2 | June 14, 1910 | June 14, 1925 | 2 00 | 46 40 | 5 80 |
| C. H. Vroome | Several. | Long Island Sound | 20.6 | Nov. 9, 1910 | Nov. 9, 1925 | 2 00 | 41 20 | 5 15 |
| Matituck Oyster Company | Several. | Long Island Sound | 35.0 | Oct. 11, 1910 | Oct. 11, 1925 | 2 00 | 70 00 | 8 75 |
| Fred Lundy | 322 | Long Island Sound | 21.0 | Dec. 14, 1909 | Dec. 14, 1924 | 2 00 | 42 00 | 5 25 |

## SCHEDULE "G" — *Concluded*

| NAME. | Lot No. | Location. | Acres. | Lease granted. | Lease expires. | Rate of rental | Annual rental. | Annual tax. |
|---|---|---|---|---|---|---|---|---|
| A. F. Merrill | 982 | Raritan Bay | 45.8 | July 12, 1910 | July 12, 1925 | $2 00 | $91 60 | $11 45 |
| Richard M. Ellard | 318 | Long Island Sound | 10.0 | May 10, 1910 | May 10, 1925 | 2 00 | 20 00 | 2 50 |
| Richard M. Ellard | 319 | Long Island Sound | 4.8 | May 10, 1910 | May 10, 1925 | 2 00 | 9 60 | 1 20 |
| Frederick Dens | 320 | Long Island Sound | 8.6 | July 12, 1910 | July 12, 1925 | 2 00 | 17 20 | 2 15 |
| W. J. Mills | 321 | Long Island Sound | 40.0 | Dec. 14, 1909 | Dec. 14, 1924 | 2 00 | 80 00 | 10 00 |
| Bayles & Thorn | 321 | Long Island Sound | 28.6 | Dec. 14, 1909 | Dec. 14, 1924 | 2 00 | 57 20 | 7 15 |
| J. H. Tillie, Jr. | 3 | Hempstead Harbor | 5.6 | July 12, 1910 | July 12, 1935 | 2 00 | 11 20 | 1 40 |
| Lowndes, Mills & Thorn | 16 | Hempstead Harbor | 10.6 | July 12, 1910 | July 12, 1935 | 2 00 | 21 20 | 2 65 |
| Lowndes, Mills & Thorn | 2 | Hempstead Harbor | 4.0 | July 12, 1910 | July 12, 1935 | 2 00 | 8 00 | 1 00 |
| Lowndes, Mills & Thorn | 18 | Hempstead Harbor | 22.2 | July 12, 1910 | July 12, 1935 | 2 00 | 44 40 | 5 55 |
| Lowndes, Mills & Thorn | 1 | Hempstead Harbor | 4.4 | July 12, 1910 | July 12, 1935 | 2 00 | 8 80 | 1 10 |
| R. R. Mott | 6 | Hempstead Harbor | 1.4 | June 14, 1910 | June 14, 1925 | 2 00 | 2 80 | 35 |
| T. T. Mott | 7 | Hempstead Harbor | 1.2 | June 14, 1910 | June 14, 1925 | 2 00 | 2 40 | 40 |
| Lars Larsen | 8 | Hempstead Harbor | .6 | June 14, 1910 | June 14, 1925 | 2 00 | 1 20 | 15 |
| Lars Larsen | 11 | Hempstead Harbor | 2.0 | June 14, 1910 | June 14, 1925 | 2 00 | 4 00 | 50 |
| Lars Larsen | 13 | Hempstead Harbor | 1.2 | June 14, 1910 | June 14, 1925 | 2 00 | 2 40 | 30 |
| Cornelius Leary | 13 | Hempstead Harbor | 2.2 | June 14, 1910 | June 14, 1925 | 2 00 | 4 40 | 55 |
| Charles Webber | 14 | Hempstead Harbor | 1.6 | June 14, 1910 | June 14, 1925 | 2 00 | 3 20 | 40 |
| Charles Olsen | 9 | Hempstead Harbor | 2.2 | June 14, 1910 | June 14, 1925 | 2 00 | 4 40 | 55 |
| Charles Webber | 10 | Hempstead Harbor | .6 | June 14, 1910 | June 14, 1925 | 2 00 | 1 20 | 15 |
| Lowndes, Mills & Ockers | 15 | Hempstead Harbor | 1.0 | June 14, 1910 | June 14, 1925 | 2 00 | 2 00 | 25 |
| Weber & Degenhardt | 317 | Long Island Sound | 22.0 | July 12, 1910 | July 12, 1935 | 2 00 | 44 00 | 5 50 |
| J. V. Golden | 17 | Hempstead Harbor | 2.2 | May 10, 1910 | May 10, 1925 | 2 00 | 4 40 | 55 |
| A. F. Merrill | 5 | Hempstead Harbor | 19.0 | May 10, 1910 | May 10, 1925 | 2 00 | 38 00 | 4 75 |
| Josiah Thompson | 323 | Long Island Sound | 5.2 | Dec. 13, 1910 | Dec. 13, 1925 | 2 00 | 10 40 | 1 30 |
| N. S. Ackerly & Son | 984 | Raritan Bay | 150.0 | Jan. 10, 1911 | Jan. 10, 1926 | 2 00 | 300 00 | 37 50 |
| New York Oyster Company | 983 | Raritan Bay | 8.6 | Jan. 10, 1911 | Jan. 10, 1926 | 2 00 | 17 20 | 1 65 |
| F. F. Downs | Several. | Long Island Sound | 135.0 | Jan. 10, 1911 | Jan. 10, 1926 | 2 00 | 270 00 | 33 75 |
| F. F. Downs | Several. | Long Island Sound | 25.0 | Jan. 10, 1911 | Jan. 10, 1926 | 2 00 | 50 00 | 6 25 |
| W. J. Mills | 4 | Hempstead Harbor | 1.0 | May 9, 1911 | May 9, 1926 | 2 00 | 2 00 | 25 |
| W. J. Mills | Several. | Long Island Sound | 294.0 | Mar. 14, 1911 | Mar. 14, 1926 | 2 00 | 588 00 | 73 50 |
| O. D. Housman | 324 | Long Island Sound | 100.0 | May 9, 1911 | May 9, 1926 | 2 00 | 200 00 | 25 00 |
| Alexander Frazer Company | 994 | Long Island Sound | 82.2 | Jan. 10, 1911 | Jan. 10, 1926 | 2 00 | 164 40 | 20 55 |
| Sofield & Frazer Company | 995 | Raritan Bay | 104.4 | May 9, 1911 | May 9, 1926 | 2 00 | 208 80 | 26 10 |
| N. S. Ackerly & Son Company | 985 | Raritan Bay | 100.0 | Mar. 14, 1911 | Mar. 14, 1911 | 2 00 | 200 00 | 25 00 |
| Herman Housman | 1000 | Raritan Bay | 50.0 | May 9, 1911 | May 9, 1926 | 2 00 | 100 00 | 12 50 |
| Pausch Bros. Oyster Company | 990 | Raritan Bay | 100.0 | Mar. 14, 1911 | Mar. 14, 1926 | 2 00 | 200 00 | 25 00 |
| Pausch Bros. Oyster Company | 989 | Raritan Bay | 200.0 | Mar. 14, 1911 | Mar. 14, 1926 | 2 00 | 400 00 | 50 00 |
| G. W. Conklin | 996 | Raritan Bay | 93.0 | Mar. 14, 1911 | Mar. 14, 1926 | 2 00 | 186 00 | .......... |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| J. A. Cochrane | 997 | Raritan Bay | 108.4 | May 9, 1911 | May 9, 1926 | 2 00 | 216 80 | ........... |
| J. A. Cochrane | 986 | Raritan Bay | 75.0 | Jan. 10, 1911 | Jan. 10, 1926 | 2 00 | 150 00 | ........... |
| J. A. Cochrane | 992 | Raritan Bay | 50.0 | Mar. 14, 1911 | Mar. 14, 1926 | 2 00 | 100 00 | ........... |
| Selah T. Clock | 998 | Raritan Bay | 100.0 | June 13, 1911 | June 13, 1926 | 2 00 | 200 00 | ........... |
| Selah T. Clock | 988 | Raritan Bay | 150.0 | Mar. 14, 1911 | Mar. 14, 1926 | 2 00 | 300 00 | ........... |
| Selah T. Clock | 991 | Raritan Bay | 150.0 | May 9, 1911 | May 9, 1926 | 2 00 | 300 00 | ........... |
| New York Oyster Company | 987 | Raritan Bay | 100.0 | Jan. 10, 1911 | Jan. 10, 1926 | 2 00 | 200 00 | ........... |
| J. H. Tilley | 326 | Long Island Sound | 30.4 | Mar. 14, 1911 | Mar. 14, 1926 | 2 00 | 60.80 | ........... |
| Benjamin Merritt | 325 | East Chester Bay | 8.0 | June 18, 1911 | June 18, 1926 | 2 00 | 16 00 | ........... |
| Grand total | ........ | .................... | 15,336.9 | ............ | ............ | ........ | $16,607 07 | $3,627 34 |

## SCHEDULE "H."

### RECEIPTS OF THE BUREAU OF MARINE FISHERIES FOR THE FISCAL YEAR ENDING SEPTEMBER 30, 1911.

| | Rentals. | Taxes. | Penalty. | Interest. | License fee. | Forfeited deposit. | Recording fee. | Relocation survey. | Total. |
|---|---|---|---|---|---|---|---|---|---|
| November 2, 1910 | $1,294 86 | .......... | .......... | .......... | $20 00 | .......... | $10 00 | $14 80 | $1,339 66 |
| November 15, 1910 | 131 76 | .......... | .......... | .......... | .......... | .......... | .......... | 7 70 | 139 46 |
| December 2, 1910 | 296 02 | .......... | .......... | .......... | .......... | .......... | 6 00 | .......... | 302 02 |
| January 6, 1911 | 4,516 52 | $18 32 | $0 35 | $1 89 | .......... | .......... | 18 50 | 7 20 | 4,562 78 |
| February 3, 1911 | 2,242 91 | 1 80 | .......... | 25 | 5 00 | $100 00 | 64 25 | 7 00 | 2,421 21 |
| March 4, 1911 | 270 35 | 2,460 33 | 117 76 | 23 | .......... | .......... | 28 75 | .......... | 2,877 42 |
| April 5, 1911 | 428 54 | 4,848 75 | 329 29 | .......... | 160 00 | .......... | 13 50 | .......... | 5,780 08 |
| May 4, 1911 | 761 07 | 38 44 | 7 34 | 1 09 | 240 00 | .......... | 11 75 | .......... | 1,059 69 |
| June 1, 1911 | 319 14 | 22 90 | 4 58 | 2 12 | 740 00 | .......... | 25 00 | .......... | 1,113 74 |
| June 30, 1911 | 62 40 | 25 50 | 5 10 | 1 49 | 685 00 | .......... | 4 25 | .......... | 783 74 |
| July 31, 1911 | 1,261 13 | 60 | 12 | 04 | 165 00 | 45 00 | 10 50 | 7 20 | 1,489 59 |
| August 31, 1911 | 332 49 | 63 | 13 | 04 | 65 00 | .......... | 12 50 | 112 22 | 523 01 |
| Sept. 30, 1911 | 1,249 44 | .......... | .......... | .......... | .......... | .......... | 14 00 | 38 18 | 1,301 62 |
| Total | $13,166 63 | $7,417 27 | $464 67 | $7 15 | $2,080 00 | $145 00 | $219 00 | $194 30 | $23,694 02 |

## SCHEDULE "I"

### EXPENDITURES OF THE MARINE BUREAU FOR THE FISCAL YEAR ENDING SEPTEMBER 30, 1911

| | | Expended to Oct. 1, 1911. |
|---|---|---|
| Office expenses | | $3,075 35 |
| Survey of shellfish lands | | 161 00 |
| Shellfish Convention | | 30 62 |
| Salaries of: | | |
| Superintendent | $3,000 00 | |
| Deputy Superintendent | 2,000 00 | |
| Engineer | 2,000 00 | |
| 8 Employees | 11,000 00 | |
| | | 15,929 20 |
| Salaries of: | | |
| Superintendent | | 367 05 |
| Deputy Superintendent | | 210 87 |
| Engineer | | 163 97 |
| Employees | | 2,756 80 |
| | | $22,694 86 |

## SCHEDULE "J"

### RENTALS DUE IN 1911 AND UNPAID ON SEPTEMBER 30TH, THE CLOSE OF THE FISCAL YEAR.

| | |
|---|---|
| Walter C. Denton | $19 60 |
| Wm. T. Schmeelk | 7 80 |
| Oyster Bay Oyster Co. | 213 97 |
| Merrell & Bayles | 17 32 |
| Merrell & Burbank | 19 75 |
| Azel F. Merrell | 264 75 |
| Joseph Ryder (Claus Kopf) | 4 50 |
| Wm. M. Schmeelk | 65 |
| William R. Wilson | 134 20 |
| Wm. H. Sellars | 1 80 |

| | |
|---|---|
| Est. Nathaniel Carman | $7 45 |
| H. W. Schmeelk Oys. Co. | 290 23 |
| Fred. Lundy | 42 00 |
| John Whittaker | 51 20 |
| Oswald T. Bergen | 29 54 |
| Dennis Dougherty | 4 10 |
| Wm. R. Fordham | 3 50 |
| | $1,112 36 |

## SCHEDULE "K"

SCHEDULE SHOWING DIFFERENCE BETWEEN ASSESSMENT OF RENTALS FOR ONE YEAR, AS PRACTICED HERETOFORE, AND ASSESSMENT TO OCTOBER 1, 1911, FOR THE PURPOSE OF MAKING ALL RENTALS DUE AND PAYABLE HEREAFTER ON OCTOBER 1st.

| | To Oct. 1, 1911. | For year. |
|---|---|---|
| Oyster Bay Oyster Co. | $213 97 | $550 00 |
| Schmeelk Oyster Co. | 282 12 | 502 80 |
| Schmeelk Oyster Co. | 8 11 | 26 00 |
| Merrell & Burbank | 19 75 | 138 80 |
| Merrell & Bayles | 17 32 | 49 20 |
| Wm. T. Schmeelk | 7 80 | 18 40 |
| Azel F. Merrell | 264 75 | 1,059 60 |
| John E. Watts | 4 98 | 10 40 |
| Elizabeth Watts | 6 51 | 13 60 |
| Chas. Weber | 93 | 3 20 |
| Weber & Degenhardt | 9 64 | 44 00 |
| Geo. H. Valentine | 8 94 | 22 80 |
| Sealshipt Oyster System | 15 12 | 51 60 |
| Geo. T. Soper | 37 83 | 73 20 |
| Geo. M. Still | 2 64 | 13 60 |
| J. H. Schmeelk | 6 54 | 21 20 |
| Sealshipt Oyster System | 40 60 | 130 00 |
| Wm. M. Remsen | 23 34 | 59 20 |
| Thos. Remsen | 5 98 | 16 00 |
| Daniel Rowland | 4 40 | 11 20 |
| Chas. Olsen | 1 30 | 4 40 |

| | To Oct. 1, 1911. | For year. |
|---|---|---|
| Geo. S. Monroe | $11 04 | $28 00 |
| Monroe & Remsen | 4 74 | 12 00 |
| T. T. Mott | 71 | 2 40 |
| Robt. R. Mott | 82 | 2 80 |
| Mills & Ronik | 46 84 | 150 00 |
| Lowndes, Mills & Thorne | 25 70 | 82 40 |
| Wm. H. Morrison | 7 08 | 18 00 |
| Cornelius Leary | 2 25 | 7 60 |
| Lars Larsen | 2 24 | 7 60 |
| E. Otis Hovey | 110 73 | 271 60 |
| Jesse V. Golden | 1 72 | 4 40 |
| Wm. H. Houghwout | 50 | 1 25 |
| R. M. Ellard | 10 68 | 29 60 |
| John Frederick | 7 28 | 15 20 |
| F. F. Downs | 78 89 | 360 00 |
| Fred Denz | 3 75 | 17 20 |
| Hiram Cadmus | 5 22 | 10 80 |
| Ernest F. Colon | 1 25 | 3 60 |
| Wm. C. Baldwin | 4 04 | 10 80 |
| Chas. V. Baldwin | 3 02 | 8 00 |
| Androvette & Thompson | 22 50 | 86 40 |
| Total | $1,333 57 | |

| | |
|---|---|
| Rentals for one year | $3,948 85 |
| Rentals to October 1, 1911 | 1,333 57 |
| Rentals, collection of which is deferred to the fiscal year of 1911–1912 | $2,615 28 |

# ANNUAL REPORT

OF THE

# FISH CULTURIST.

# REPORT OF THE FISH CULTURIST.

Hon. THOMAS H. GUY, *Deputy Commissioner, Division of Fish and Game:*

SIR.— I present herewith a report upon the fish cultural work of the Conservation Commission during the fiscal year ended September 30, 1911.

This includes the annual statements of the foremen of the nine hatcheries now operated by the State and of the experimental work with the pike in Lake George, together with practical notes made during inspection trips as to the condition of the hatcheries and ponds and the habits, reproduction, diseases, enemies and culture of the fishes and other aquatic animals of the State. It contains also statistical data concerning the output of the various stations, its money value and its increase during the last five years.

The number of fish furnished to applicants for stocking public waters was 701,448,394, an increase over the distribution of 1910 of 164,152,419, or more than 30 per cent. The growth of the work can best be appreciated by the simple statement that in 1907 the entire yield of the nine stations was 250,656,600 fish.

In order to arrive at a clear and fair statement of the money value of the fish sent out in 1911 the circulars of commercial fish hatcheries have been carefully examined and compared, and when no other guide was available I have taken the market value of the food fish as a basis of computation. The private hatcheries have to do with only a few species of fish including several kinds of trout, black bass, yellow perch, white perch, sunfish of several kinds, roach and catfish.

The State hatcheries not only furnish game fish for sport and food but they also cultivate important food fishes, both fresh-water and marine, so that thirty-three or more species are under our care.

The shad, river herring, whitefish, frostfish, lake herring, tullibee, smelt, pike, pikeperch, blue pike, yellow perch, white perch, sea bass, tomcod, flatfish, lobster and edible crab all receive attention and the results of the work are evident to any one interested in the subject.

The inventoried value of hatchery property in January, 1911, according to the statements of the foremen, was $144,251.77. This includes not only the lands but also the improvements, ponds and all equipment.

The maintenance fund for 1911, together with cost of repairs and improvements, collection of eggs and miscellaneous expenses was $75,145.90.

The value of the fish planted was $212,115.42. In addition to this the Commission has at its hatcheries fully $8,000 worth of brood fish including trout, bass and calico bass.

The total number of trout including brook, lake, brown, rainbow and black spotted distributed by the hatcheries was 7,676,388, of which number 3,466,388, or about 45 per cent., were fingerlings. The State has such a wide range of temperature that the size of trout available for distribution varies greatly. A brook trout two inches long is very common on Long Island, at Bath and Caledonia about the end of April; but in the Adirondacks the same kind of trout would be little advanced above the fry stage. Brook trout hatched in January at Caledonia have attained to a length of six inches in November of the same year.

It will be observed that some of the hatcheries are less productive than others; but allowance must be made for location, water supply, natural advantages and proximity to fish suitable for artificial culture. The general results are so favorable as to merit approval for the work as a whole, and improvements are being made as rapidly as facilities will permit.

The stations, with the exception of Caledonia, have suffered less than formerly from the inroads of disease. Caledonia is able to produce certain kinds of trout and a great many food fish at the present time. The chief difficulty now is connected with the brown trout brood fish which have been attacked by a bacterial disease due to water pollution. The rainbow trout is scarcely affected by this trouble, and the brook trout are hatched and reared to fingerling size outside of the hatchery grounds in pure spring water.

The station at Bath has been redeemed by the introduction of spring and artesian water, and its work with trout is constantly improving.

Among the most important of the recent improvements at the Long Island Station are the small hatchery for marine food fishes at Cold Spring Harbor and the auxiliary hatchery at Montauk, intended for the propagation of lobster, sea bass and other valuable marine species.

The small hatchery at Cold Spring Harbor was completed about the end of the fiscal year. It will utilize salt water stored in a basin fed from the harbor. The water will be pumped into a distributing tank and used for hatching tomcod, cod, flatfish and any other important food fish that can be obtained in the vicinity. This addition to the establishment has long been needed, and it is surprising to recall the great results which have heretofore been produced with the crude facilities for marine fish culture at the principal station. The Cold Spring Harbor hatchery distributes hundreds of millions of food fish annually, and at the same time it develops trout eggs to the eyed stage for its own use and for other hatcheries to the number of 5,000,000 or more.

The hatching of the lobster and sea bass at Montauk (Fort Pond bay) has been carried on up to the present time under many disadvantages. The little building now standing on ground leased from Mr. Edward D. Tuthill will revolutionize the marine work in that locality. The only apparatus available has been the old-fashioned Seth Green shad boxes which were antiquated a quarter of a century ago. With modern appliances at Montauk and at Cold Spring Harbor the work of the station will be greatly facilitated and it is merely a question of the number of eggs available to decide the limit of the capacity of the station. The auxiliary hatchery at Cold Spring Harbor provides for large tanks in the cellar in which live cod can be retained until their eggs are mature. On the floor of the building ample space is furnished for hatching troughs for the development of eggs of tomcod, flatfish and any other marine food fish whose eggs can be collected.

Contruction work began in 1907 at Linlithgo Station. The original intention of the Commission in establishing it was to propagate shad and other river species. It was soon discovered that black bass, calico bass, yellow perch and various other native fish valuable for food or sport could be reared successfully in the ponds. The shad season is very short, and it would not have been economical to limit the work of the station to that fish.

A hatchery was built, ponds were laid out, and supplies of eggs were collected by the employees or purchased from fishermen. During the first year or two it was possible to obtain only about 1,000,000 eggs of shad in a season; but now the number has been increased to 8,000,000 or more. The eggs taken in 1911 yielded more than 4,800,000 shad for planting in the Hudson, and of these 100,000 were fingerling fish, many of them four inches long. Shad rearing operations have been conducted here for several years; but never upon a great scale because of limited area at present for ponds. The method of pond rearing was abandoned long ago by the United States Bureau of Fisheries, and has gone into decadence in Connecticut. It is easy enough to rear the shad, and the cost of the experiment is small; but the outlay for necessary ponds, say for rearing a million fingerlings, would be too great for the present appropriations.

The ponds containing brood bass proved very successful this year. There was no mortality in the wintering ponds, and the supply of natural food for the adult and young bass is so abundant at Linlithgo as to make bass culture there very profitable.

This station has furnished nearly 500,000 brook trout fry annually since the completion of the hatchery. It has not been possible to rear trout to fingerling size, because the creek water supplying the rearing troughs and ponds becomes too warm in late spring to sustain trout life. To remedy this situation a well was sunk close to the hatchery. This well was completed June 23d, at a depth of seventy-five feet, and with an ordinary well digger's pump fifteen gallons of water per minute were taken without diminishing the level of the well. The temperature of the water is 52 degrees. A pump and engine will be installed over this well and when in operation the quantity of water will undoubtedly be much increased. This will make it practicable to rear a large number of trout because the well water can be mingled with a certain proportion of creek water and the mixture will be cold enough for the fish.

The advantage of having a station capable of producing fingerling trout in Columbia county is very great.

The Oneida Station receives its water supply from Frederick creek, a tributary of Scriba creek into which it flows near the mouth of the latter stream. Scriba creek rises in the town of Amboy. It is about eighteen miles long. This creek and Frederick creek are ideal waters for black bass and pikeperch culture.

The hatchery is antiquated in its construction, and it will probably not continue serviceable many years longer. The foundation at one end is on quicksand. The supply pipe is only eight inches in diameter, and comes into the hatchery direct from the dam on Frederick creek, an arrangement which is very objectionable. This pipe is liable to become clogged at any time. Fortunately the station is equipped with a pumping plant to take water directly from Frederick creek while the bass ponds are fed from a flume taken laterally from the storage pond and not liable to accident except from the destruction of the dam.

The hatchery building ought to be devoted entirely to storage purposes, and a new building should be erected near the site of the present stripping house.

The Commission should acquire two pieces of property now in private hands, in order to increase the work at Constantia to a proper basis. I refer to the sawmill property belonging to Southwell and the lake front tract owned by Dobson. If we had the Southwell mill property, containing about seven and one-half acres, and the Dobson tract of about two acres, the latter could be used for harbor and residential purposes, the Southwell land could be utilized for additional ponds, and in this way the yield of the Oneida Station could easily be trebled. The cost of these lands need not exceed $6,000 judging from offers made by the present owners.

## HATCHERY EXPENDITURES AND VALUE OF OUTPUT, 1911.

| Hatchery | Value of output |
|---|---|
| Adirondack | $14,348 10 |
| Bath | 7,369 61 |
| Caledonia | 21,987 25 |
| Chautauqua | 8,231 50 |
| Cold Spring Harbor | 69,763 00 |
| Delaware | 3,935 00 |
| Fulton Chain | 4,012 50 |
| Linlithgo | 5,830 88 |
| Oneida | 75,887 58 |
| Lake George | 750 00 |
| Total | $212,115 42 |

### EXPENDITURE.

| | |
|---|---|
| Maintenance fund | $64,078 35 |
| Repairs and improvements | 8,309 07 |
| Collection of eggs | 2,348 32 |
| Miscellaneous | 410 16 |
| Total | $75,145 90 |

The stations should also be credited with the value of the brood fish in the ponds. It is difficult to make a perfect census of the brood stock; but the following items will give some idea of its extent:

The Caledonia Station has 5,000 brown trout and 5,000 rainbow trout ranging in age from three to five years; the Cold Spring Harbor Station has 5,000 brook trout from two to five years old and 500 brown trout of like age; the Delaware Station has 2,500 brook trout ranging from yearlings to five or six-year-old fish, and the Linlithgo Station has 147 adult small mouthed black bass and 205 adult calico bass. A moderate estimate, based upon prices at commercial hatcheries, would give a total of more than $8,000 for the brood trout, bass and calico bass.

## VALUE OF FISH DISTRIBUTED BY STATE HATCHERIES, 1911.

### ADIRONDACK.

| | | | |
|---|---|---|---|
| Brook trout, fry...... | 1,375,000 | $2,750 00 | |
| Brook trout, fingerlings. | 962,750 | 9,627 50 | |
| Lake trout, fry....... | 60,000 | 60 00 | |
| Lake trout, fingerlings. | 57,834 | 289 17 | |
| Brown trout, fingerlings | 6,000 | 60 00 | |
| Black spotted trout, fingerlings ........... | 23,738 | 237 38 | |
| Rainbow trout, fingerlings ............. | 9,555 | 95 55 | |
| Whitefish, fry ........ | 4,830,000 | 1,207 50 | |
| Frostfish, fry ........ | 92,000 | 23 00 | |
| | | | $14,348 10 |

### BATH.

| | | | |
|---|---|---|---|
| Brook trout, fry...... | 215,000 | $430 00 | |
| Brook trout, fingerlings. | 549,261 | 5,492 61 | |
| Lake trout, fry....... | 17,000 | 17 00 | |
| Lake trout, fingerlings.. | 50,000 | 250 00 | |
| Brown trout, fry...... | 63,000 | 126 00 | |
| Brown trout, fingerlings. | 65,700 | 657 00 | |
| Rainbow trout, fry.... | 26,000 | 52 00 | |
| Rainbow trout, fingerlings ............. | 34,500 | 345 00 | |
| | | | 7,369 61 |

### CALEDONIA.

| | | |
|---|---|---|
| Brook trout, fry...... | 293,000 | $586 00 |
| Brook trout, fingerlings. | 253,250 | 2,532 50 |
| Brown trout, fry...... | 150,000 | 300 00 |
| Brown trout, fingerlings. | 196,500 | 1,965 00 |
| Lake trout, fry........ | 75,000 | 75 00 |
| Lake trout, fingerlings.. | 26,400 | 132 00 |
| Rainbow trout, fry.... | 260,000 | 520 00 |

| | | | |
|---|---|---|---|
| Rainbow trout, fingerlings | 241,000 | $2,410 00 | |
| Whitefish, fry | 1,890,000 | 472 50 | |
| Pikeperch, fry | 31,110,000 | 9,333 00 | |
| Lake herring, fry | 14,645,000 | 3,661 25 | |
| | | | $21,987 25 |

### CHAUTAUQUA.

| | | | |
|---|---|---|---|
| Brook trout, fry | 215,000 | $430 00 | |
| Brook trout, fingerlings | 149,000 | 1,490 00 | |
| Lake herring, fry | 14,000,000 | 3,500 00 | |
| Maskalonge, fry | 8,600,000 | 2,580 00 | |
| Yellow perch, fry | 250,000 | 75 00 | |
| Black bass, fry | 7,625 | 152 50 | |
| Black bass, fingerlings | 100 | 4 00 | |
| | | | 8,231 50 |

### COLD SPRING HARBOR.

| | | | |
|---|---|---|---|
| Brook trout, fry | 232,000 | $464 00 | |
| Brook trout, fingerlings | 270,500 | 2,705 00 | |
| Black spotted trout, fingerlings | 2,400 | 24 00 | |
| Rainbow trout, fry | 70,000 | 140 00 | |
| Rainbow trout, fingerlings | 25,500 | 255 00 | |
| Whitefish, fry | 1,500,000 | 375 00 | |
| Smelt, fry | 138,100,000 | 27,630 00 | |
| Pikeperch, fry | 750,000 | 225 00 | |
| Sea bass, fry | 4,000,000 | 1,000 00 | |
| Tomcod, fry | 79,600,000 | 15,920 00 | |
| Flatfish, fry | 78,000,000 | 9,750 00 | |
| Lobster, fry | 45,100,000 | 11,275 00 | |
| | | | 69,763 00 |

### DELAWARE.

| | | | |
|---|---|---|---|
| Brook trout, fry | 440,000 | $880 00 | |
| Brook trout, fingerlings | 237,000 | 2,370 00 | |
| Brown trout, fry | 95,000 | 190 00 | |
| Brown trout, fingerlings | 49,500 | 495 00 | |
| | | | 3,935 00 |

| | | | |
|---|---|---|---|
| **Fulton Chain.** | | | |
| Brook trout, fry | 125,000 | $250 00 | |
| Brook trout, fingerlings | 250,000 | 2,500 00 | |
| Lake trout, fry | 20,000 | 20 00 | |
| Lake trout, fingerlings | 6,000 | 30 00 | |
| Whitefish, fry | 4,000,000 | 1,000 00 | |
| Frostfish, fry | 800,000 | 200 00 | |
| Black bass, adult | 50 | 12 50 | |
| | | | $4,012 50 |
| **Linlithgo.** | | | |
| Short-nosed sturgeon, adult | 30 | $60 00 | |
| Shad, fry | 4,707,250 | 1,412 17 | |
| Shad, fingerlings | 100,000 | 500 00 | |
| River herring, fry | 20,000,000 | 2,500 00 | |
| Brook trout, fry | 479,000 | 958 00 | |
| Yellow perch, fry | 360,000 | 108 00 | |
| Black bass, fry | 6,000 | 120 00 | |
| Black bass, fingerlings | 4,150 | 166 00 | |
| Black bass, adult | 25 | 6 25 | |
| Sunfish, fry | 1,028 | 31 | |
| Rock bass, fry | 500 | 15 | |
| | | | 5,830 88 |
| **Oneida.** | | | |
| Tullibee, fry | 9,180,000 | $2,295 00 | |
| Pikeperch, fry | 131,635,000 | 39,490 50 | |
| Yellow perch, fry | 95,000,000 | 28,500 00 | |
| Yellow perch, fingerlings | 300,000 | 1,500 00 | |
| Black bass, fry | 202,500 | 4,050 00 | |
| Black bass, fingerlings | 422 | 16 88 | |
| Bullhead, adult | 300 | 30 00 | |
| Miscellaneous, adults | 26 | 5 20 | |
| | | | 75,887 58 |
| **Lake George.** | | | |
| Pike, fry (Dunham's bay creek) | 5,000,000 | $750 00 | 750 00 |
| | | | $212,115 42 |

## FISH DISTRIBUTION IN 1911 BY STATIONS.

### ADIRONDACK.

| | | |
|---|---|---|
| Brook trout, fry | 1,375,000 | |
| Brook trout, fingerlings | 962,750 | |
| | | 2,337,750 |
| Lake trout, fry | 60,000 | |
| Lake trout, fingerlings | 57,834 | |
| | | 117,834 |
| Brown trout, fingerlings | | 6,000 |
| Black spotted trout, fingerlings | | 23,738 |
| Rainbow trout, fingerlings | | 9,555 |
| Whitefish, fry | | 4,830,000 |
| Frostfish, fry | | 92,000 |
| | | 7,416,877 |

### BATH.

| | | |
|---|---|---|
| Brook trout, fry | 215,000 | |
| Brook trout, fingerlings | 549,261 | |
| | | 764,261 |
| Lake trout, fry | 17,000 | |
| Lake trout, fingerlings | 50,000 | |
| | | 67,000 |
| Brown trout, fry | 63,000 | |
| Brown trout, fingerlings | 65,700 | |
| | | 128,700 |
| Rainbow trout, fry | 26,000 | |
| Rainbow trout, fingerlings | 34,500 | |
| | | 60,500 |
| | | 1,020,461 |

### CALEDONIA.

| | | |
|---|---|---|
| Brook trout, fry | 293,000 | |
| Brook trout, fingerlings | 253,250 | |
| | | 546,250 |

| | | |
|---|---|---|
| *Brown trout, fry | 150,000 | |
| Brown trout, fingerlings | 196,500 | |
| | | 346,500 |
| Lake trout, fry | 75,000 | |
| Lake trout, fingerlings | 26,400 | |
| | | 101,400 |
| Rainbow trout, fry | 260,000 | |
| Rainbow trout, fingerlings | 241,000 | |
| | | 501,000 |
| Whitefish, fry | | 1,890,000 |
| Lake herring, fry | | 14,645,000 |
| †Pikeperch, fry | | 31,110,000 |
| | | 49,140,150 |

### CHAUTAUQUA.

| | | |
|---|---|---|
| Brook trout, fry | 215,000 | |
| Brook trout, fingerlings | 149,000 | |
| | | 364,000 |
| Lake herring, fry | | 14,000,000 |
| Maskalonge, fry | | 8,600,000 |
| Yellow perch, fry | | 250,000 |
| Black bass, fry | 7,625 | |
| Black bass, fingerlings | 100 | |
| | | 7,725 |
| | | 23,221,725 |

### COLD SPRING HARBOR.

| | | |
|---|---|---|
| Brook trout, fry | 232,000 | |
| Brook trout, fingerlings | 270,500 | |
| | | 502,500 |
| Black spotted trout, fingerling | | 2,400 |
| Rainbow trout, fry | 70,000 | |
| Rainbow trout, fingerlings | 25,500 | |
| | | 95,500 |

---

* Eyed eggs brown trout shipped to other stations for development and distribution, 600,000.

† From eggs sent from Oneida Station.

| | | |
|---|---|---|
| Whitefish, fry | | 1,500,000 |
| Smelt, fry | | 138,100,000 |
| Pikeperch, fry | | 750,000 |
| Sea bass, fry | | 4,000,000 |
| Tomcod, fry | | 79,600,000 |
| Flatfish, fry | | 78,000,000 |
| Lobster, fry | | 45,100,000 |
| | | 347,650,400 |

### Delaware.

| | | |
|---|---|---|
| Brook trout, fry | 440,000 | |
| Brook trout, fingerlings | 237,000 | |
| | | 677,000 |
| Brown trout, fry | 95,000 | |
| Brown trout, fingerlings | 49,500 | |
| | | 144,500 |
| | | 821,500 |

### Fulton Chain.

| | | |
|---|---|---|
| Brook trout, fry | 125,000 | |
| Brook trout, fingerlings | 250,000 | |
| | | 375,000 |
| Lake trout, fry | 20,000 | |
| Lake trout, fingerlings | 6,000 | |
| | | 26,000 |
| Whitefish, fry | | 4,000,000 |
| Frostfish, fry | | 800,000 |
| Black bass, small mouth, adult | | 50 |
| | | 5,201,050 |

### Linlithgo.

| | |
|---|---|
| Short-nosed sturgeon, adults | 30 |
| Shad, fry | 4,707,250 |
| Shad, fingerling | 100,000 |
| River herring, fry | 20,000,000 |

| | | |
|---|---|---|
| Brook trout, fry | | 479,000 |
| Yellow perch, fry | | 360,000 |
| Black bass, fry | 6,000 | |
| Black bass, fingerlings | 4,150 | |
| Black bass, adult | 25 | |
| | | 10,175 |
| Sunfish, fry | | 1,028 |
| Rock bass, fry | | 500 |
| | | 25,657,983 |

### ONEIDA.

| | | |
|---|---|---|
| Tullibee, fry | | 9,180,000 |
| *Pikeperch, fry | | 131,635,000 |
| Yellow perch, fry | 95,000,000 | |
| Yellow perch, fingerlings | 300,000 | |
| | | 95,300,000 |
| Black bass, fry | 202,500 | |
| Black bass, fingerlings | 422 | |
| | | 202,922 |
| Bullhead, adults | | 300 |
| Miscellaneous (State Fair) adults | | 26 |
| | | 236,318,248 |

### LAKE GEORGE.

| | |
|---|---|
| Pike, fry (Dunham's bay creek) | 5,000,000 |

## INVENTORIED VALUE OF HATCHERY PROPERTIES, JANUARY, 1911,

| | |
|---|---|
| Adirondack hatchery, Upper Saranac, N. Y. | $20,183 25 |
| Bath hatchery, Bath, N. Y. | 14,233 24 |
| Caledonia hatchery, Mumford, N. Y. | 34,157 25 |
| Chautauqua hatchery, Bemus Point, N. Y. | 7,296 42 |
| Cold Spring Harbor hatchery, Cold Spring Harbor, N. Y. | 19,268 96 |

---

* Also shipped 295 quarts of pikeperch eggs to the Caledonia Station from which 31,110,000 fry were distributed.

| | |
|---|---|
| Delaware hatchery, Margaretville, N. Y........ | $8,747 50 |
| Fulton Chain hatchery, Old Forge, N. Y. ....... | 5,803 91 |
| Linlithgo hatchery, Linlithgo, N. Y........... | 20,561 24 |
| Oneida hatchery, Constantia, N. Y. (Est.)...... | 14,000 00 |
| | $144,251 77 |

## FISH DISTRIBUTED BY STATE HATCHERIES.

Short Nosed Sturgeon
Bullhead
Quinnat Salmon
Silver Salmon
Land Locked Salmon
Brook Trout
Brown Trout
Black Spotted Trout
Steelhead Trout
Rainbow Trout
Lake Trout
Shad
River Herring
Whitefish
Frostfish
Lake Herring
Tullibee
Smelt
Maskalonge
Pike
Pikeperch
Blue Pike
Yellow Perch
White Perch
Black Bass (sm. mouth)
Calico Bass
Rock Bass
Sea Bass
Cod
Tom Cod
Flatfish
Lobster
Blue Crab

### FISH DISTRIBUTED, 1907 TO 1911.

| | 1907. | 1908. | 1909. | 1910. | 1911. |
|---|---|---|---|---|---|
| Adirondack......... | 5,766,300 | 7,014,088 | 7,874,533 | 7,024,613 | 7,416,877 |
| Bath............... | 1,449,350 | 1,977,150 | 821,100 | 730,100 | 1,020,461 |
| Caledonia.......... | 9,402,100 | 5,366,382 | 17,690,121 | 6,378,750 | 49,140,150 |
| Chautauqua......... | 5,000,000 | 3,846,000 | 8,669,500 | 6,666,100 | 23,221,725 |
| Cold Spring......... | 177,187,250 | 304,038,000 | 351,815,130 | 357,272,800 | 347,650,400 |
| Delaware........... | 249,500 | 715,000 | 605,250 | 827,000 | 821,500 |
| Fulton Chain........ | 3,477,700 | 3,036,336 | 2,218,550 | 6,924,575 | 5,201,050 |
| Linlithgo........... | 566,100 | 881,000 | 10,867,000 | 57,947,050 | 25,657,983 |
| Oneida............. | 47,558,300 | 67,646,150 | 129,716,037 | 93,524,987 | 236,318,248 |
| | 250,656,600 | 394,520,106 | 530,277,221 | 537,295,975 | 696,448,394 |
| Lake George (Dunham's Bay Creek)........ | | | | | 5,000,000 |
| | | | | | 701,448,394 |

The increase in the distribution of 1911 over that of 1910 is 164,152,419 or more than 30 per cent.

## FISH DISTRIBUTION BY SPECIES.

### SUMMARY FOR THE YEAR ENDING SEPTEMBER 30, 1911.

| | |
|---|---|
| Short-nosed sturgeon, adults | 30 |
| Bullhead, adults | 300 |
| Shad, fry | 4,707,250 |
| Shad, fingerlings | 100,000 |
| River herring, fry | 20,000,000 |
| Frostfish, fry | 892,000 |
| Whitefish, fry | 12,220,000 |
| Lake herring, fry | 28,645,000 |
| Tullibee, fry | 9,180,000 |
| Black spotted trout, fingerlings | 26,138 |
| Brown trout, fry | 308,000 |
| Brown trout, fingerlings | 317,700 |
| Rainbow trout, fry | 356,000 |
| Rainbow trout, fingerlings | 310,555 |
| Lake trout, fry | 172,000 |
| Lake trout, fingerlings | 140,234 |
| Brook trout, fry | 3,374,000 |
| Brook trout, fingerlings | 2,671,761 |
| Smelt, fry | 138,100,000 |
| Pike, fry | 5,000,000 |
| Maskalonge, fry | 8,600,000 |
| Rock bass, fry | 500 |
| Long-eared sunfish, fry | 1,028 |
| Small mouthed black bass, fry | 216,125 |
| Small mouthed black bass, fingerlings | 4,672 |
| Small mouthed black bass, adult | 75 |
| Pikeperch, fry | 163,495,000 |
| Yellow perch, fry | 95,610,000 |
| Yellow perch, fingerlings | 300,000 |
| Sea bass, fry | 4,000,000 |
| Tom cod, fry | 79,600,000 |
| Flatfish, fry | 78,000,000 |
| Lobster, fry | 45,100,000 |
| Miscellaneous fish, State Fair | 26 |
| | 701,448,394 |

## REPORTS FROM THE HATCHERIES.

### Adirondack Station.

The work at this station for 1911 has been along the usual lines, and we have had very good success, meeting, of course, with some difficulties such as are always found in fish cultural work, where so much depends upon the weather, the condition of the water, etc.

During the past season 1,012 applications have been filled from this hatchery. These applications called for 7,416,952 fish. Of this number 2,337,825 were brook trout, the remainder being lake, brown, rainbow, black spotted trout, whitefish and frostfish.

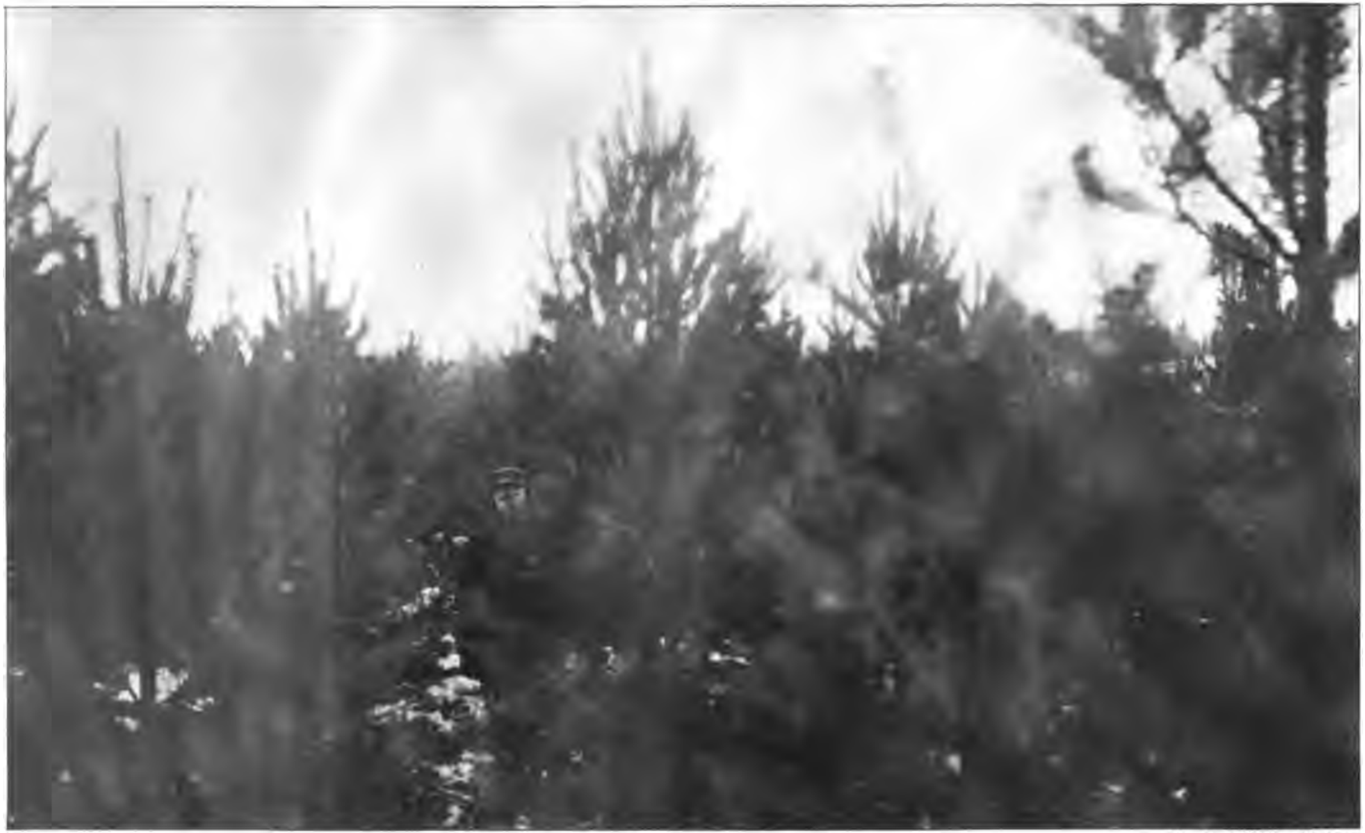
We met with fairly good success in collecting brook trout eggs last fall; but the number of lake trout eggs collected was small. On the hatchery preserve we have a body of water, Little Green pond, which to me seems an ideal place for lake trout, and I think good results could be obtained by stocking this water heavily with this species of fish. Most of our lake trout eggs obtained last fall were taken from this lake.

Through the courtesy of Mr. E. H. Johnson, superintendent, we are taking eggs on the Whitney Preserve, at Long Lake West. We hope to take a large number of eggs there, as the waters on this preserve seem to be well stocked with trout.

We have decided not to take eggs in Lake Placid this season, as some of the campers and residents on the lake objected to the nets being placed there, they having an erroneous idea that it was injurious to the fish to take spawn from them. So much difficulty was experienced by the nets being robbed and destroyed that we decided to put them elsewhere. A liberal number of fish has always been granted to the applicants for these waters, a plant of 2,805,000 whitefish being placed in Lake Placid and Mirror lake in 1911.

During the month of July we received from Henry Davidson, foreman of the Batch hatchery, 124,000 brook trout fingerlings which were placed in the waters of this vicinity.

As in former years, we put nets in Little Green pond, to secure rainbow and black spotted trout eggs. We were fairly suc-



C. R. Pettis, Photo.

Scotch Pine Plantation, State Land near Lake Clear Junction, N. Y.
Nine Years after Planting.

UNIV. OF MICH.

cessful in getting rainbow eggs, but not a black spotted trout was caught. This was very unusual, as we had for a number of years collected many eggs of this species of trout from this lake. I could find no reason for this falling off of fish as the lake is on the hatchery preserve, and no fishing is allowed there.

Through the United States Bureau of Fisheries, we received from Yellowstone Park, Wyo., 40,000 black spotted trout eggs. Although the weather was very warm and the eggs were on the road six days, they arrived in very good condition. The fish from these eggs were placed in local waters.

Owing to the activities of a large blue heron, which came in the early morning hours, perched on the sides of the ponds and races, and with his sharp sword-like beak speared and killed trout which were altogether too large for him to carry away, we lost two of our beautiful Albino trout, also some of our brook trout that were kept for stock fish on the hatchery grounds. These birds destroy a large number of fish in small streams and along the shores of lakes and ponds.

It will be necessary to have some improvement work done here another season. The buildings need repainting and a small amount of cement work ought to be done. I hope we may be able to have a pump installed to pump the cold spring water on the grounds into the hatchery and races, where it would be of inestimable value to us in raising fingerling trout.

Respectfully yours,
MILO F. OTIS,
*Foreman.*

UPPER SARANAC, N. Y., *November* 16, 1911.

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## BATH STATION.

In submitting my report of operations at the Bath hatchery for the year ending September 30, 1911, I take pleasure in saying that this has been the most successful year in the history of the station.

Our stock of eggs, mostly brook trout, were received from various localities and proved to be better than those of other years. The eggs sent from Cold Spring Harbor furnished us the best fish. Our stock fish have been free from disease, and the fish are strong and healthy at the present time.

During July, 1911, and up to August 3d, 124,000 brook trout fingerlings were transferred to the Adirondack hatchery. The fish were met at Utica by messengers from the Adirondack Station, and they were afterward used to fill applications which could not be supplied from the stock at the hatchery.

The distribution has been very satisfactory. Nearly all applicants were on hand to meet the fish and very little loss was reported in transportation.

Through the month of August a very considerable amount of grading was finished. This adds greatly to the appearance of the property.

A new roof has been put on the hatchery. All the buildings were painted and some cement walks laid. The shrimp which were placed in our big spring pond have multiplied rapidly and are furnishing us with considerable fish food.

Respectfully yours,
HENRY DAVIDSON,
*Foreman.*

BATH, N. Y., *November* 1, 1911.

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## CALEDONIA STATION.

The work at this hatchery has been very successfully carried on during the past year. There have been 49,140,150 fish distributed during the past season. We also sent 600,000 eyed brown trout eggs to other hatcheries. We were short in our output of brown trout eggs as the water was bad, caused by the drainage from Caledonia village. For this reason we did not get one-half our usual number of eggs of this species. We were also disappointed in getting lake trout eggs from the Great Lakes, which greatly reduced our output. Those we did get were taken from Stony Island and Lower Lake Ontario. We had 100,000 lake trout eggs from the United States Commission.

Through the assistance of Mr. P. H. Hartman, of the Pennsylvania Department of Fisheries, we were very successful in gathering herring and whitefish eggs at Erie, Pa. These eggs turned out a very large percentage of fish.

A large amount of repairing has been done. The old stone walls in most of the ponds were taken down below the water line and replaced by solid concrete. The raceway feeding the ponds was treated in the same way. Both these improvements had become necessary to successful work at the station. We also filled and graded an old ice pond below the hatchery. This greatly improved the appearance of the grounds. There is some more concreting to be done; but the cold weather prevented the work this year. The pond at the head of the creek where the old planks are should have concrete retaining walls, as the planks are rotten. The pond itself should be dredged on account of the bad condition which prevails.

Respectfully yours,
FRANK REDBAND,
*Foreman.*

CALEDONIA, N. Y., *November* 1, 1911.

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## CHAUTAUQUA STATION.

As the records will show, the season from October 1, 1910, to October 1, 1911, has been an active and a productive one for this station. A record of fish eggs received and collected, fish hatched and distributed is given in another report, which shows a decided increase over any past season's work.

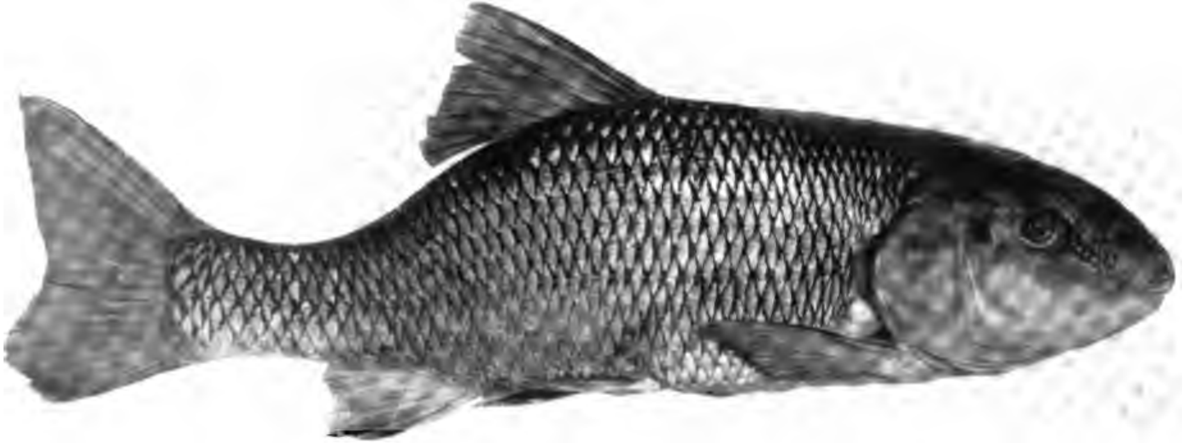
Eyed brook trout eggs were bought and shipped here from Charles A. Wolters, Weissport, Pa. A small, unaccountable loss of these eggs occurred after they were placed on the hatching trays. These eggs were replaced by Mr. Wolters without charge. Trouble with excessive air in the artesian water was again experienced with the brook trout at the fry and first stages of the feeding period. Serious loss was prevented by disposing of a portion of the fish at the fry period and filling the rearing ponds to their capacity. As nice fingerlings were raised from these fry as I ever handled.

The Lake Erie herring work commenced at Dunkirk December 6th, closing December 19th. Spawn takers went out on the tugs with the fishermen. They secured the eggs as the nets and fish came on board of the boat. Weather conditions often make it difficult to procure and treat the eggs satisfactorily A total of 37,875,000 eggs was obtained, nearly filling the hatching capacity. Thanks are due the Desmond Fish Company, of Dunkirk, for the use of their tugs and for able assistance.

Collection of maskalonge eggs in Chautauqua lake commenced April 22 and ended May 14, 1911. Eleven pound nets were used in this work, making a record take of 10,668,000 eggs. Eight million six hundred thousand fry were hatched and planted from this collection of eggs.

Through the courtesy of Mr. George Rappole a small plot of ground adapted to the building of two small temporary ponds for experiment with spawning black bass in artesian water was placed at our disposal. Twenty-four adult black bass were taken from the lake a short time before they were ready to spawn and placed in one of these ponds, proper nests having been provided. For the purpose of raising the temperature as much as possible the artesian water was run through 100 feet of open trough before emptying into the pond. The temperature of this water as it flows out of the well is 48 degrees. During warm, sunny days the pond temperature would rise to about 70 degrees, but would drop back nearly to normal during nights and cloudy, cool days. The bass were left in the pond from three to four weeks and at times they would work a little on the beds, but none of them ever spawned. At the end of this time I opened one of the female bass and found that the eggs were what we term "caked" and that the fish would not spawn. I then returned the remaining bass to the lake.

I put about 1,000 maskalonge fry in the other pond, and they all died in a few days. We then collected about 18,000 black bass fry from the shore of the lake, in front of the hatchery, and placed them in this pond. By feeding them small minnow fry, just hatched, the young bass did well; but as we were unable to furnish sufficient food for them, a majority were returned to the lake in about ten days. The few remaining ones were kept for fingerlings and did fairly well, but did not grow as such fish do



CHUB OR FALL FISH, *Semotilus bullaris.*
Bone Pond, Franklin Co., N. Y.
Dec. 5, 1911. Milo F. Otis.

UNIV. OF

in warmer water. This experience proves to me that while the artesian water might be made to do the work, it would never be as successful as the warmer or lake water.

There is little or no room on the present hatchery site for installing ponds for bass culture. I would repeat my suggestion of last year that some favorable place for this work be secured which would furnish a location suitable for keeping some of the maskalonge to an older stage before liberating. These fish are now all planted at the fry stage.

The many needed repairs and improvements are under way or completed. A new 18 x 24 ft. icehouse is finished and ready for use. A new flagpole was raised near the shore of the lake in front of the hatchery. The hatchery and engine-house were given two coats of paint on the outside, and the inside of the hatchery was varnished and put in good shape. The artesian water system was changed so that it now runs through an open trough outside of the hatchery before entering the hatching troughs which we expect will overcome some if not all of the air bubble trouble with the small fish.

The jar or battery hatching system is changed so that we may now use lake water exclusively. This water we find by experience is much better for hatching the herring and maskalonge eggs than the artesian water. Owing to high water and the lateness of the season in disposing of brook trout we did not get the 500 feet of 8-inch wrought-iron pipe installed in place of the wooden flume that furnishes water from the lake to the pumping station. The contemplated new rearing ponds were not built, as they could not be put in until the iron pipe was placed. I would recommend leaving the installation of the iron pipe until warm weather and low water.

A new gasoline engine and rotary pump have been ordered and are on the way for use in the coming season's work. The pump is large enough to do the work of the three pumps now at the station. We will keep these three as reserves which will place the pumping plant on a substantial basis.

I would recommend that seventeen double windows be furnished for the lower floor of the hatchery. I would also suggest the purchase of a power boat to be used for the maskalonge work in the place of hiring one, also to improve and beautify the place, that a bulkhead be built along the water front and filled in. This would make a place for an attractive lawn and flowers.

Respectfully yours,
GRANT E. WINCHESTER,
*Foreman.*

BEMUS POINT, N. Y., *November* 20, 1911.

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## COLD SPRING HARBOR STATION.

Through the generosity of Mr. Slade, president of the South-side Sportsmens' Club, Oakdale, L. I., we collected a fine lot of brook and rainbow trout eggs. Most of these were sent to other hatcheries, enough being collected from our ponds to supply all demands on this station. These eggs were collected by our men with the assistance of Mr. Dan King, who has charge of the club ponds. Our eggs were hatched and the fry did very well, some of them being carried through the summer.

Our tom cod work was very successful. We had plenty of fry of this fish to fill all applications. The reports of good fishing in nearby waters show the result of planting in previous years.

The smelt work was also successful, and a large collection of eggs was made. The fry were planted in great numbers.

The flatfish or winter flounder, the eggs of which are rather difficult to collect owing to the rough weather during their spawning season in February and March, often get injured when confined in trap nets, and are unfit for use. We succeeded in collecting a fine lot which hatched very well.

The lobster work was most gratifying. We collected about four times as many eggs as in any previous year. We were ably assisted by Capt. E. B. Tuthill in taking these eggs. It was through his influence with the fishermen that we obtained so many egg lobsters. This branch of the work is done near the fish landing at Montauk, L. I., and the fishermen who collect the eggs are greatly interested in the work. Many of the young lobster fry are planted by the men on their way to the fishing grounds. There was a large catch of lobsters this year, a great many of them being berried. The fishermen report a great many small lobsters — no doubt from last season's planting.

Our record of sea bass was rather small owing to the difficulty of keeping the eggs in the floating boxes. This trouble can be overcome another season by doing the work in the hatchery building erected for this purpose. This building is to be used for bass and lobster hatching.

The improvements made this season include the small hatchery building at Montauk, L. I., and the one built near the main hatchery at Cold Spring Harbor, to be used for salt water work. We have made some repairs on our salt water ponds which supply this hatchery. Part of our grounds have been filled in, improving a very unsightly spot. We have made other small improvements.

Respectfully yours,
CHARLES H. WALTERS,
*Foreman.*

COLD SPRING HARBOR, N. Y., *October* 1, 1911.

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## DELAWARE STATION.

The work of this hatchery for the past year has been quite satisfactory. About 500 cans of brook and brown trout were planted. The fish did well after hatching, no disease of a serious nature appearing among them. This I ascribe to a very liberal use of salt almost from the time the sac was absorbed.

We had another dry season, although it did not last as long as last year. We had most of our small fish planted before the drought came on; but we lost quite a few of our stock fish in the ponds. We had plenty of rain the latter part of the summer and this fall, so that the ground is now pretty well filled with water for the winter.

The improvements have been quite extensive this year, such as painting hatchery buildings, workshop and icehouse, laying a new cement sluice or outlet from races to brook, relining head trough and sluice around races, laying a short piece of cement walk, replanking cover for intake pipe at dam, placing new stringers under drive bridge, new flagpole and several other minor things which all add very much to the appearance of the place. I was also allowed to make several improvements to the dwelling-house which were very much needed. Our races outside of the hatchery will need rebuilding another year.

The fishing in the Delaware river near here was good. Nice baskets of brown trout were caught, also a moderate number of rainbows nine and ten inches long.

The pine and spruce trees planted here two years ago last spring are doing finely. The pines made a splendid growth this year.

Respectfully yours,
H. E. ANNIN,
*Foreman.*

MARGARETVILLE, N. Y., *October* 1, 1911.

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### FULTON CHAIN STATION.

The output of this station for the fiscal year was 5,201,050 fish. We filled 268 applications and in most cases the parties were on hand to meet the fish; but some applicants seemed to think that if they do not come to the railroad station designated on the application blank the messenger will hold the fish for them. This cannot be done because the fish require the constant care of an attendant and the messengers are obliged to continue on their way to fill the applications of other people. In such cases the fish are carried forward to the next applicant on the route.

The water was very warm here the latter part of May, causing quite a loss of brook trout; but was cooler through June, and we were very successful in disposing of our fingerlings.

We built two large trap nets for our whitefish work this season, and expect to increase our take of whitefish eggs by several millions.

We have shingled and painted the icehouse and painted the storehouse. We also laid a cement walk along the street, in front of the hatchery, and from the street to the hatchery, which greatly improves the grounds. We have laid an additional 8-inch pipe from the dam to the bulkhead and a 6-inch pipe from there to the hatchery. Two 4-inch pipes distribute the water to different parts of the building. By this method the water supply is doubled and the capacity for raising fingerling fish is greatly increased.

Respectfully yours,
WILLIAM H. BURKE,
*Foreman.*

OLD FORGE, *November* 15, 1911.

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## LINLITHGO STATION.

I submit herewith my report of this station for the fiscal year ending September 30, 1911. The work at this station has been carried on as usual excepting that many repairs have been made. The conduit leading to the main reservoir was originally laid with 10-inch tile. This was broken by the frost of last winter so that it had to be taken up and restored. The repairing was done by putting in 100 feet of 10-inch iron pipe and incasing the most of the remainder in cement. It will be necessary to take up all the tiling and put iron pipes in its place before it will be a permanent fixture.

The pipe which conducts the water to the dwelling-house from the hatchery was so near the surface of the ground that it was practically frozen up all last winter. This has all been taken up and put below the frost line.

American field fence has been bought for all the line fencing of the grounds and put up excepting on that portion along the Bonneville estate. This would have been completed had we known just where the line is. As no monument work was made at the time of the condemnation proceedings of this tract, we have not been able, as yet, to establish a line.

A drilled well, seventy-five feet deep, has been put down about six feet east of the hatchery, and an engine and pump bought for pumping the water into the hatchery. Water at a temperature of 52 degrees was found and a flow of from fifteen to twenty gallons per minute. We expect by this to hold our brook trout up to fingerling size.

The frost of last winter opened a seam in the large reservoir, along the east and south sides, from two to six inches wide. This has been plugged with concrete, but I am afraid it will not stand the frost.

The total output of fry and fingerlings from Linlithgo hatchery has been very satisfactory. On February 2, 1911, we received 600,000 eyed brook trout eggs from C. A. Wolters, of Weissport, Pa. From April 7th to May 3d we distributed 479,000 brook trout fry on 72 applications.

The collection of shad eggs was carried on in the vicinity of Rhinecliff. The eggs were bought from the fishermen at the usual price of $10 per 100,000 eyed eggs. The hot weather in May shortened the run; but we liberated 4,707,250 fry. On September 23d, 100,000 fingerling shad were let out of the ponds into the Roeliff Jansen. These were put into the ponds June 8th and fed on water meal. When liberated they ranged from two to six inches in length.

The small mouthed black bass did well this year as compared with last year; 4,400 were sent out as fry on 14 applications and 6,750 as fingerlings on 22 applications. Twenty-five of the adult bass were taken out of the ponds and put into Hayner pond in Rensselaer county.

We succeeded this year in raising a few calico bass. This is the first of this species that we have been able to raise since they were put into the ponds three years ago. On May 3d fifty-four short-nosed sturgeon were put into a pond for rearing purposes. They evidently spawned, but some bass escaped into the pond and all the sturgeon fry were eaten by them.

In getting food fish for the adult bass, we collected and hatched 360,000 yellow perch fry. We put seventeen long-eared sunfish in a pond by themselves and took therefrom, on September 23d, 1,028 fine fingerlings.

The total number of herring hatched was about 25,000,000. The decrease in the herring output was due no doubt to the extremely warm weather in early June. The water being so warm and the fish remaining in the nets so long before the eggs were taken made the percentage hatched lower than usual.

All of our stock fish have been very healthy and free from disease this year. Only six of the adult black bass died and four of these deaths were accidental. None of the sturgeon died, and only a few of the calico bass. Twelve of the calico bass were found growing light colored and upon examination swellings like boils were found upon them. Incisions were made in these swellings and by the help of tweezers a long reddish worm was extracted. The wound was thoroughly cleansed with salt and an application of oil applied. All of these fish are alive yet. This treatment was applied in the latter part of October, 1910.

Three large beds on the south side of the hatchery made a fine display of flowers and were admired by many of the visitors during the flowering season. The grounds were kept neat and tidy and caused much favorable comment from those who saw them.

About the only improvement needed the coming year, except pond building, which will be done by the regular hatchery force, is to replace the 10-inch tiling by 10-inch iron pipe.

Very respectfully yours,
WALLACE D. RHINES,
*Foreman.*

LINLITHGO, N. Y., *September* 30, 1911.

## ONEIDA STATION.

The work for the past season upon the whole has been very successful. The pikeperch were more plentiful than ever before during the spawning season and were larger in size. Eggs were taken from 3,130 females and milt from 16,343 males. They not only filled the hatchery, but furnished the Caledonia hatchery with 295 quarts of eggs to be hatched for distribution in the western part of the State.

The bass ponds have been a success in regard to hatching; but the stock bass did not thrive during the hot weather. They were all returned to Oneida lake, and we have since thoroughly cleaned out the ponds and salted them, using about two tons of salt to each pond.

We were quite successful in hatching yellow perch in the early part of May.

There were distributed from the hatchery this year 9,180,000 tullibee fry, 131,635,000 pikeperch fry, of which 105,285,000 were planted in Oneida lake, and the balance distributed among 201 applicants. Yellow perch fry, numbering 95,000,000, were liberated in Oneida lake. Of the 202,500 black bass fry 149,000 were planted in Oneida lake, and the rest were sent to 143 applicants. The small-mouthed black bass raised to fingerling age numbered 11,622. Of these 11,000 were planted in Oneida lake after the close of the fiscal year.

A very large number of yellow perch fingerlings were planted upon application from eighty-two persons; but this work had scarcely begun at the close of the fiscal year. Some of the adult fish exhibited at the State Fair at Syracuse (26) representing several species were planted in Onondaga lake after the close of the fair.

The total number of fish distributed during the fiscal year was 236,318,248.

The eye trouble with the yellow perch fingerlings in Frederick creek has been very slight this fall. The lamprey eels were about as abundant as in 1910, and they killed thousands of fish in the lake. There has not been quite so many muskrats in the bass ponds this year as usual.

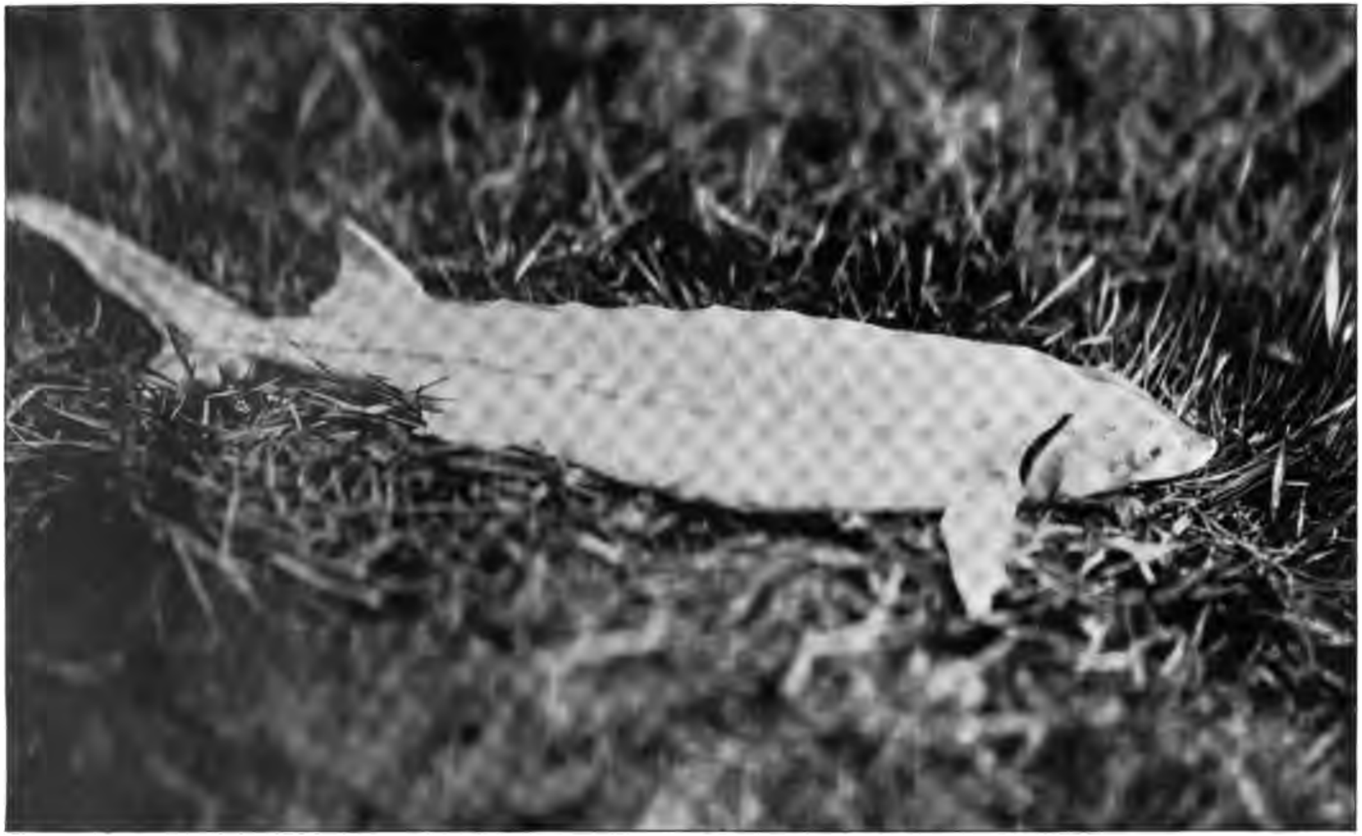
The hatchery is in good condition and also all the other buildings. We are rather crowded for storeroom for small boats, nets, etc., but will soon begin to build a storehouse 18 x 50 feet, which I think will furnish plenty of room for everything.

We have rebuilt a small dam at the pond which supplies the stripping-house with water.

The following species of fish were obtained from Oneida lake for the State Fair at Syracuse: Pike, pikeperch, pickerel, yellow perch, sunfish, strawberry bass, bullheads, large-mouthed black bass, small-mouthed black bass, lamprey, catfish, carp, eel and suckers.

Respectfully yours,
GEORGE F. SCRIBA,
*Foreman.*

CONSTANTIA, N. Y., *December* 18, 1911.



SHORT-NOSED STURGEON, *Acipenser brevirostris*.
Linlithgo, N. Y., June, 1911.
From Hudson River. Wallace D. Rhines.

UNIV. OF MICH.

## NOTES ON FISHES.

### LAMPREYS.

The large lake lamprey spawns in the creeks near Oneida lake in May or June. The immature animals abound in the mud and sand of the creek shores and the effects of the parasite are observed daily on the surface of the lake for a considerable period of time, beginning in June or July. Large numbers of tullibee, pikeperch, suckers and other lake species may be seen floating at the surface as victims of the lamprey's appetite for blood.

In 1911, the lake lamprey was spawning in Frederick creek, at Constantia, about May 25th, continuing for one week. It usually spawns in June.

Cayuga lake inlet, near Ithaca, is an excellent location for the large, freshwater lamprey. Spawning begins there about May 20th and continues well into June. Another fine location for study is at Constantia, N. Y., in tributaries of Oneida lake.

The marine lamprey spawns in the Nissequoque river, at Smithtown, L. I., about the 1st of May. Many large specimens have been observed near the bridge which crosses the river at the Riverside Inn, about one-half mile from the railroad station. No doubt this species may be found in other small streams on both sides of Long Island.

### SHORT-NOSED STURGEON.

The following notes on the short-nosed sturgeon are extracted from an article by the writer in Bulletin 60, New York State Museum, pages 68–69:

This little known sturgeon has not been generally recognized anywhere except in the Delaware and in Gravesend bay; only a few specimens have been obtained in the river, and it is rare in Gravesend bay. Professor Ryder collected five examples at Delaware City in the spring of 1888 and has published a description of the species in the Bulletin of the United States Fish Commission for that year.

The largest specimen known was thirty-three inches long; individuals twenty inches long are capable of reproducing the species.

Spawning takes place in the Delaware during May. The eggs are deposited in depths of one to five fathoms on hard bottom in brackish or nearly fresh water. Professor Ryder states that the eggs are extruded by rubbing the belly either against hard places on the river bed or against the rough bodies of the males, two or more of which accompany each female. The gravid roe fish are larger than the males. Professor Ryder found the ova more or less adhesive immediately after their removal from the abdomen, but the sticky mucus covering is soluble in water. The period of hatching varies from four to six days.

Up to the third month of its life the young sturgeon has minute conical teeth in its jaws, and at this age it is believed to subsist on "rhizopods, unicellular algæ, infusoria, minute larvae of insects and worms, crustaceans, etc." Still following the observations of Professor Ryder, we learn that the sturgeon, when it has reached a length of one inch to one and one-half inches, has minute teeth on the floor of the pharynx and feeds on small water fleas, and probably algæ, worms, embryo fishes, insects and fresh-water copepods. Later in life the fish seeks larger crustaceans, and the adults occasionally contain fragments of mussel shells. The young fish have been caught under the ice in midwinter, and are known to pass most of the year in fresh water.

A single small example of this sturgeon was brought to the New York Aquarium from Gravesend bay May 13, 1896, and was alive and in good condition in November, 1898.

Dr. Smith records the occurrence of the species along with the common sturgeon at Wood's Hole, Mass., but says it is less numerous. It is captured in the traps.

On March 18, 1911, Mr. Walter Flicker, of Malden, N. Y., wrote me that he hoped to show that this species is plentiful in the Hudson river. He stated that it spawns on a rough, muddy bottom in deep water where there are plenty of sticks and cinders. He believes it begins to spawn about May 15th. It does not spawn as quickly as some other fish, but appears to take some time. He claims that it can be found in the Hudson throughout the year.

On March 22, 1911, Mr. Flicker delivered two females and one male to the foreman of the Linlithgo Station, and during the month of May he collected fifty-four additional individuals for observation at Linlithgo.

In 1908, employees of the Pennsylvania Fisheries Commission noted that the short-nosed sturgeon in the Delaware river reached the spawning age at a very much earlier period and when of a much smaller size than was usually supposed. A number of these sturgeon were captured and placed in one of the larger ponds at the Torresdale hatchery. They were about equally divided as to sex. The majority produced either ripe eggs or milt, but neither sex ripened at the same time as the other. In the spring of 1909, a large pond was stocked with small short-nosed sturgeon ranging from a foot and a half to three feet in length. There were about five males to one female. Two females ripened at the same time as four males, and the eggs were taken. The eggs of the first female were not all ripe, and very few of the eggs were hatched. A second lot of eggs was treated differently and a good proportion of them were incubated. The result of the work conducted at Torresdale in 1909 indicated that they are not suitable for hatching by the jar method. The eggs are so heavy and glutinous that, in the first place, the jars had to be set one at every trough in order to furnish a sufficient force of water to move the eggs, and secondly, on account of their heaviness, those which fungused would not rise to the top of the jar, making screening almost impossible. It was believed by the Superintendent that much better results could be obtained by hatching the eggs on lake trout trays.

The sturgeon cannot be kept over the winter in shallow ponds.

The short-nosed sturgeon at Linlithgo Station were caught in the Hudson river in the spring of 1911. On May 15th, there were fifty-seven in a pond, among them a number of gravid females. When the pond was drawn down in the fall it was discovered that the fish had spawned; but no fry were found. A few bass had accidentally got into the pond, and it is believed that they destroyed all the young fish.

The only loss of sturgeon was one fish which jumped into the outlet and remained so long out of water that it could not be revived.

The sturgeon were fed upon pond snails and crawfish, both of which are abundant at Linlithgo. They consumed the snails in very large quantities. They will also eat pieces of fresh fish, although this is probably not a natural food for the species.

One of the sturgeon was partly melanistic, the dark blotches being numerous and very large. Thirty of the fish were sent to the New York Aquarium where they are still living and in good condition.

The remaining sturgeon were liberated in the Roeliff Jansen kill.

It is the intention to take the short-nosed sturgeon again at the proper time in the Hudson, and, if possible, collect the eggs artificially and hatch them in a protected place. The fry can be reared in a small pond free from fish enemies, and it is hoped that the method will prove successful.

### CATFISH.

Catfish usually spawn in the month of May, and sometimes continue until the middle of June. In open waters the parent fish make holes under the banks and deposit the eggs in large masses. The very young fish look like little black tadpoles. The old fish accompanies the brood for a certain time, swimming around the swarm to keep them together. At such times it would be very easy to destroy the catfish by thousands. In Chautauqua lake the hatchery employees have caught thousands of pounds at a time in pound nets set for maskalonge. It would seem that by netting and by removing the swarms of young the fish could easily be reduced to such an extent as to cease to be troublesome.

According to a letter of the hatchery foreman dated May 9, 1911, the pound nets set for maskalonge in Chautauqua lake do not now take many catfish. The greatest number caught in any one net in a night was seventy-five; fifteen would be a good average for seven out of the eleven nets.

### MINNOWS.

It is a very difficult thing to keep a large number of minnows in a small place. Fungus always attacks them; but it is not the cause of disease as it usually follows after some injury. The remedy for fungus is common salt. This may be placed in the

A Large Maskalonge, Chautauqua Lake.

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water in large quantities and the fish allowed to remain in the brine until they begin to show signs of distress, then flush out the tank with fresh water. The swift-water chub or horned dace, also the black-nosed dace, will not endure captivity as well as some other minnows. A good food for the minnow is minced earthworms and clams. Bread is not suitable for them. Spratt's put up a fish food consisting chiefly of animal meal which has been used successfully.

### SHAD.

The upper waters of our shad streams have been so obstructed by high dams and otherwise made unfit for the reproduction of the species that the shad now spawns at comparatively short distances from the sea. For example, our men now take eggs at Rhinecliff, on the Hudson, a point 89 miles above New York and 45 miles below Castleton, which was the breeding ground of the shad twenty odd years ago. Still earlier the fish ascended the river as far as the dam at Troy which is 150 miles north of New York. They could not ascend farther. Fishways have not affected the movements of the shad upstream as far as can be ascertained.

On May 9, 1911, the first lot of shad eggs, consisting of 22 quarts, or 616,000 eggs, were delivered by fishermen at Rhinecliff to the Linlithgo Station. On the following day 31 quarts, equalling 868,000 eggs, were received from the same source. The number collected during the first two days of the season was greater than the average yield for the entire season a few years ago.

An improvement in the method of transferring the shad fry from the hatchery to the Roeliff Jansen kill has been devised by Foreman Rhines. He has connected a heavy rain spout with the receiving trough into which the fry pass as fast as they are hatched. This spout drops more than twenty feet before it reaches the creek, and in order to overcome the danger of shock a 45 degree elbow was introduced outside of the hatchery. By this means the little fish are conveyed gently into an artificial eddy made in the stream and from here they can readily pass into the creek and thence into the Hudson.

According to previous experience the fry will remain in the creek for a considerable period before entering the river. More than 100,000 of the fry were reared to fingerling size in a pond prepared for their growth. They were fed upon cracker dust in addition to which they had swarms of minute crustaceans which reproduced naturally in the pond.

### BLACK SPOTTED TROUT.

The black spotted trout is no longer limited to Adirondack lakes. It has been found in the Boquet river, near Elizabethtown, N. Y., and the commission has introduced it into the Catskills. It is hoped that the species will be established in many suitable waters of the State.

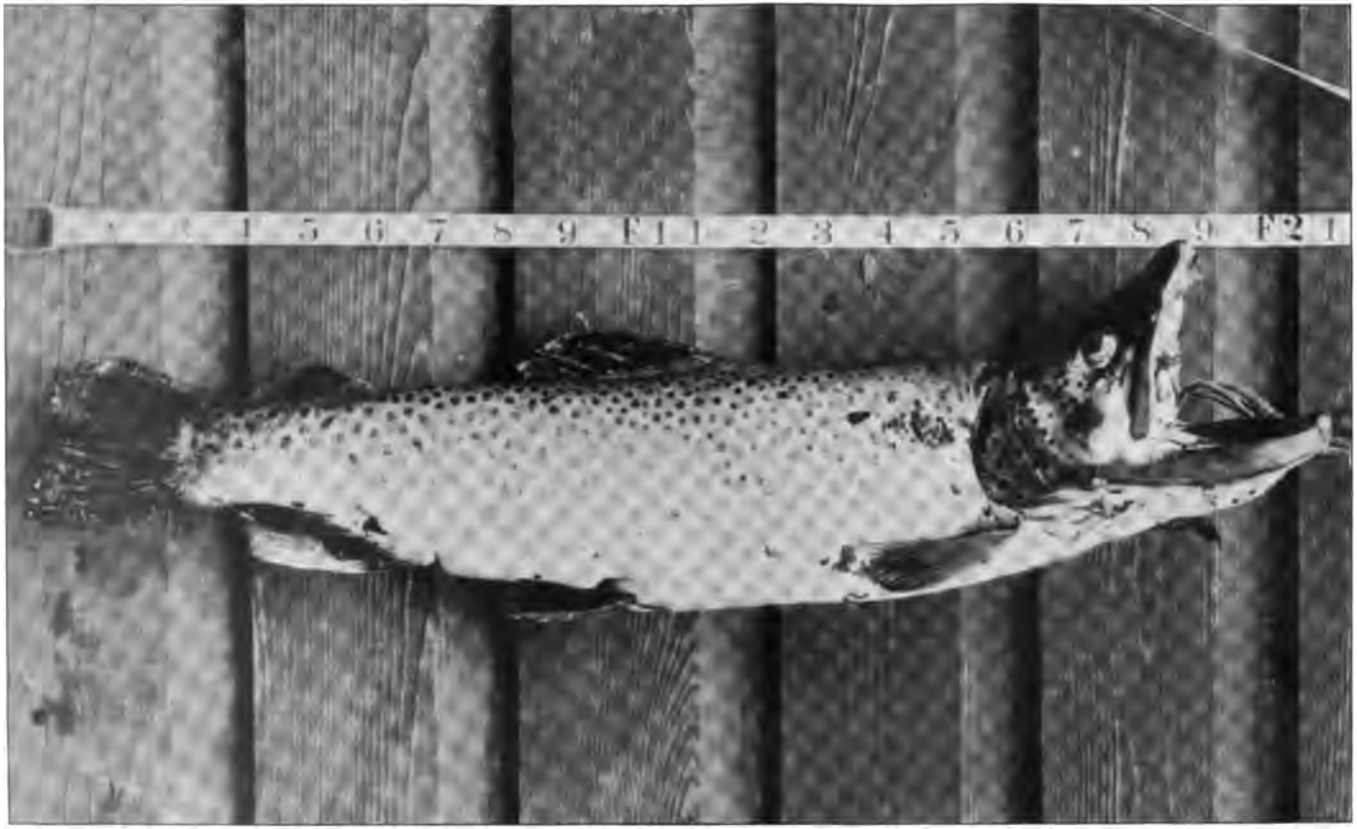
### BROWN TROUT.

The brown trout has the following coloration: On the head, body and dorsal fin usually numerous red and black spots, the latter circular or egg-shaped, and some of them with a pale border; yellowish margin usually present on the front of the dorsal and anal and the outer part of the ventral. The dark spots are few in number below the lateral line. The ground color of the body is brownish or brownish black varying with food and locality. This trout has been hybridized with the Loch Leven trout extensively.

### LOCH LEVEN TROUT.

The Loch Leven trout has the following coloration:

Upper parts brownish or greenish olive, or sometimes with a reddish tinge, sides silvery with a varying number of egg-shaped black spots, or sometimes rounded brown spots or rounded black spots which may be ocellated. Occasionally red spots are seen on the sides, and the adipose fin may have several bright orange spots, or it may show a red edge and several dark spots; sides of the head with round black spots; dorsal and adipose fins usually with numerous small brown spots; tip of pectoral blackish; anal and caudal fins unspotted, but the caudal sometimes has an orange margin, and the anal a white edge with black at its base; a similar edge may sometimes be observed on the ventral.



**Black Spotted Trout**, *Salmo henshawi.*
Boquet River, near Elizabethtown, N. Y.
May, 1910. Photo from Geo. L. Brown.

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The Loch Leven trout is the land-locked form of the European sea trout, and in its natural habitat can easily be distinguished from the brown trout which is a fresh water species.

### LAKE TROUT.

Differences in the flesh colors and game qualities of lake trout will be found wherever this trout exists. It is generally supposed that the color of flesh depends upon the food; but this is not settled. The fish experts have reached the conclusion after careful study of large series of specimens from various waters that we have only one lake trout, properly so-called, in North America. Perhaps there may still be some doubt concerning the form of the fish which is found in certain lakes. The difference in color is not regarded as indicating distinct species of fish.

In Lake George the most successful trolling bait for lake trout is a small whitefish, locally known as frostfish. In Sunapee lake the land locked smelt is an excellent bait for this trout. For a short time after the ice leaves the lakes, these fish will rise readily to artificial flies; but this mode of fishing does not last long.

Pikeperch are taken by trolling with a spoon such as we use for black bass. For still fishing live minnows are preferred to all other baits, especially such as are more or less transparent and silvery, for example the fallfish, the corporal, the redfin and the gudgeon. In Oneida lake the best results have been obtained with large angle worms and crawfish. When the fish are near the shore many are taken by trolling with minnows attached to the spoon ; but when they are in deeper water the baits above mentioned are effective. There is usually little difficulty in taking a mess of pikeperch, but the fishing for lake trout is more uncertain. A very nice lake trout was taken in Star lake recently on a small live minnow which was hooked through the body near the base of the tail, so that its movements in the water were rather lively. The principal difficulty in the capture of lake trout is due to the omnivorous appetite of the fish. It is generally so full of food that it is not inclined to take bait of any kind.

### PIKE.

On January 19, 1911, the attention of the Forest, Fish and Game Commissioner was called to the presence of a great breeding ground of the pike in Lake George, and it was stated that eggs could be collected in enormous quantities in very shallow water soon after the ice leaves the creek and that they could be easily hatched in floating boxes and placed in the lake where this fish, locally called "pickerel," is highly prized as a food and game fish.

Late in April, 1911, some fyke nets were sent from the Linlithgo Station to Lake George for the use of Mr. E. S. Casselman, of Dorset, Vt., who was selected to carry on the work of pike hatching in Dunham's bay, Lake George. Mr. Casselman was on the spawning ground April 15th, and examined the breeding swamp in company of Mr. William H. Burnett. He wrote, on April 19th, that the pike had not yet begun to run up to the breeding grounds. The lake was very low and consequently the water had not set back over the vast marsh as usual, and therefore the pike would have to suawn in the deep channel of the creek, and their eggs could not be collected in the shoal water of the bogs; but the fish would have to be caught in the creek in nets and stripped artificially.

Mr. Casselman corroborates the reports of the Fish Culturist to the effect that Lake George and its vicinity furnish favorable grounds for artificial culture of the pike and various species of the salmon family.

The pike began to run April 24th. On April 25th the first eggs were taken from pike caught in fyke nets. A gill net was used later for the capture of males, but this required constant watching so as to liberate the pike before injury was caused by the net.

On May 1st the last eggs were taken. The eggs were hatched in twelve Seth Green shad boxes.

The whole number of pike netted was 237, of which 54 were egg-bearing females. The number of eggs obtained was estimated at 30 quarts, and they were hatched with a loss of about 25 per cent. Some of the boxes did not yield this percentage of fry and others exceeded it. The weight of the females taken varied from 4 to 8 pounds.

The eggs were slightly adhesive, or cohesive; they were inclined to stick to each other and not to other substances with which they came in contact, as for example the egg pan; but by a generous use of milt and gentle movement with a feather and avoiding exposure to the air after water had been added, and leaving them in the milted water for fifteen minutes this cohesion was entirely overcome and they became completely separated.

The milt of from 3 to 5 males was usually required to fertilize the eggs of 1 female. The eggs hatched in from 10 to 15 days at a water temperature varying from 57 degrees to 65 degrees. The eggs taken on May 1st hatched in ten days at temperatures of 61 to 63 degrees.

The fry or embryo, when first hatched is very helpless and has a very large yolk sac in proportion to its length. The sac is fully absorbed in about five days in a temperature of 61 to 65 degrees. These notes on the hatching of the pike in Lake George are from the reports of Mr. Casselman.

This experiment with the pike made a very favorable impression upon the property-owners on Lake George, and the sentiment is very strongly in favor of continuing the operations. Dr. Fielding, of Glens Falls, has recently purchased the ground at the entrance to Dunham's bay creek, and he informed the Commission that it could have the free use of the property for the purpose of propagating pike or other fish for Lake George. He realizes the need of restocking the lake and expressed his readiness to aid in the work by giving this property for the use of the State.

Mr. E. B. Gardner, of Elmira, under date of January 25, 1911, states that northern pike are now found in Eldridge lake. Some years ago one of the officials of the Northern Central railroad brought some pike from Sodus bay and placed them in the lake, and lately they have been catching them. Mr. Gardner says if there were not so many small fish in the lake for the pike to feed on the sport would be great. A merchant last fall caught one that weighed eight pounds by casting from the shore, and on the night of January 24th a friend of Mr. Gardner brought into his office one weighing five and one-half pounds that he had caught fishing through the ice. This was the third pike caught in that way during the winter. Eldridge lake is well supplied with aquatic plants, and is fifty feet deep in the center. It has no inlet, but is fed by springs.

### MASKALONGE.

On May 8, 1911, the foreman of the Chautauqua hatchery reported as follows:

"With to-day's take of 'longe eggs we have 230 quarts, 9,660,000 eggs, which is the largest number, according to records here, taken since the years 1898 and 1899, when 10,020,000 were secured each year. Ten quarts more will break the record, and it looks very encouraging. * * *

"I have the head of a 'longe that we got to-day that weighed 40 pounds, 4 feet 2 inches long; greatest girth 24 inches; caudal fin 11½ inches spread out."

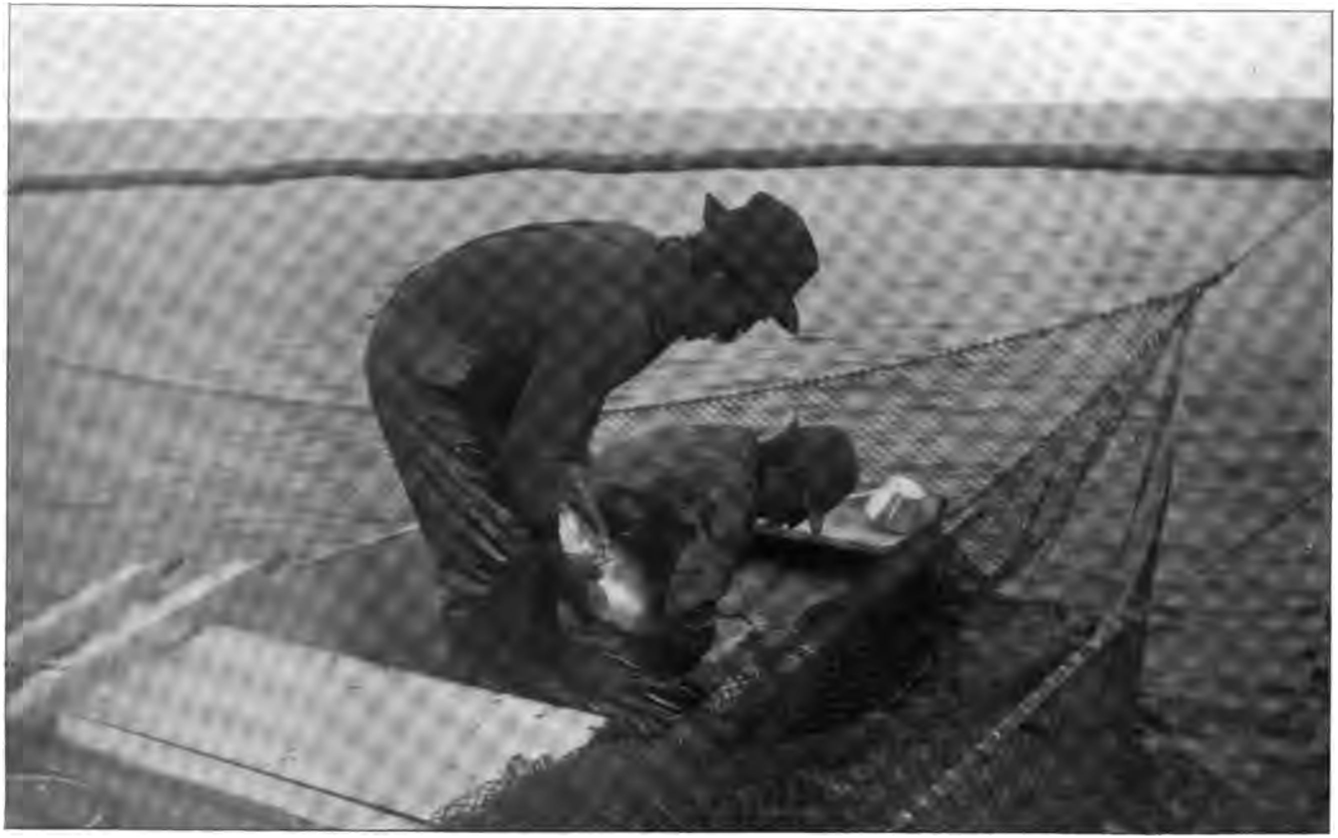
On May 10th he reported that the take of maskalonge eggs on that day broke all records.

On May 23d the foreman reported that during the egg-collecting season for maskalonge eleven pound nets were used and 2,395 maskalonge were taken. Of this number 1,295 were ripe males and 303 ripe females. Two hundred and fifty-four quarts of eggs were obtained, representing 10,668,000 eggs. From these eggs 8,600,000 fry were distributed.

Complaints are occasionally received by the Commission of the loss of fry in transit. It is always risky to carry maskalonge far from their native waters, especially in a hot season.

On April 27, 1911, the foreman had collected 14,500 eggs. Cold weather has retarded the spawning, but conditions were more favorable toward the end of April.

In the spring of 1911 the foreman at the Chautauqua Station reported that the glass tubes used in the Meehan hatching jars are very destructive to maskalonge eggs, and he suspected that they also injured the eggs of lake herring. The first maskalonge eggs taken were run with the glass tubes and became a total loss, after which he changed to the bell-mouthed tube. He made a test, using a tube of each kind on some eggs that came out of the same pan when put up and found that the one with the glass tube soon killed the eggs, causing over one-half of them to turn white in less than twenty-four hours, while the eggs with the bell-mouthed tube were good.



Taking Maskalonge Eggs, Chautauqua Lake.

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## CALICO BASS.

The calico bass at the Linlithgo Station suffered a loss of only one fish in their pond. On May 15th there were 219 in the pond, and indications were that they would make nests very soon. They were so tame as to feed out of the hands of the attendants.

In transferring them at the Linlithgo station in the fall, forty-nine little ones were found. This is not a great many, but it goes to prove that this species may be raised artificially at Linlithgo.

## SUNFISH.

On June 5, 1911, many young sunfish, *Lepomis gibbosus,* were coming into the hatchery tanks at Constantia with the water supply. They are readily distinguished from the bass by their deeper body and paler color.

## BLACK BASS.

The black bass at the Linlithgo station were wintered over in their pond without the loss of a single fish. On May 15th they were very plump in appearance, and had already begun to prepare nests.

The black bass which were wintered over in Pond No. 3 at the Oneida station, after deducting all losses through parasitism, numbered sixty-three. On May 12th these were in fine condition, plump and healthy, and were transferred to another pond.

The spawning season at Constantia began two weeks earlier in 1911 than in 1910. Bass fry were seen in the ponds on May 25th. The season continued later than in 1910. The foreman found seven nests on June 5th, from which a large number of fry were obtained.

An excellent method of feeding black bass is by producing minnows such as shiners and chubs, also suckers, in a narrow race as near a natural brook as possible and located in such a manner as to facilitate emptying the water into ponds intended for rearing young bass. The minnows and suckers are allowed to breed naturally. When the eggs hatch and the fry are able to move about they drop down into the bass pond and serve as food for the young bass. The raceway is screened at the foot to prevent the escape of the large minnows and also at the intake in order to retain the minnows and fry. The different species of minnows spawn at different times, and the best plan is to keep them separate and select those whose spawning period will be as extended as possible.

Bass fry are also fed upon fish food ground to a consistency suitable for them; but they must learn to eat prepared food, whereas they will take the little minnows without any instruction. When live food is furnished to the bass in sufficient quantities the loss from cannibalism is very small.

At the Chautauqua Station on June 15, 1911, the foreman found some young small mouthed bass naturally hatched which were seven-eighths of an inch long. Very little evidence of cannibalism was observed among them at that time. The young had plenty of natural food. The adult black bass at the station had not spawned. It is probable that the artesian water was too cold for their nesting.

On June 10, 1911, the foreman had 17,680 black bass fry in a pond, which were naturally hatched in Chautauqua lake. They were thriving and fed freely on the fry of minnows.

## PIKEPERCH.

The work of collecting pikeperch eggs at the Oneida station in 1911 began a week later than usual, and on April 16th the total quantity of eggs in the hatchery was only 84 quarts, containing 12,600,000 eggs. The ice was driven away from the mouth of Scriba creek. The wind was strong and cold. The pikeperch were running fairly well, and were somewhat abundant in Scriba creek.

On April 26th the station had about 900 quarts, or 135,000,000 of eggs and had shipped 295 quarts to the Caledonia hatchery, an unprecedented yield for the station at Constantia. The output of fry from these eggs was 162,745,000.

Some of the eggs were shipped to Caledonia in cans, and others in egg cases. Those shipped in cases arrived in as good condition as the eggs sent in cans in the care of a messenger.

FISH IN POUND NET, CHAUTAUQUA LAKE, N. Y.

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The pikeperch at Constantia are caught very largely in trap-nets by our men. These nets have also taken common pike, pickerel, yellow perch, strawberry bass, chubs, suckers, bullheads and lawyers or burbot.

The number of pikeperch taken for the Oneida hatchery in 1911 was 136,311, an increase of more than 36,000 over the number taken in 1910. Of these the number of females stripped was 3,130, and the number of males 16,343. The females furnished 1,215 quarts of eggs, estimated at 150,000 to the quart.

In April when the pikeperch are spawning in Scriba creek, at Constantia, the stream is filled with small yellow perch and minnows which come up to feed upon the eggs and fry of that species. The percentage of pikeperch fry which escapes the depredations of enemies in Scriba creek is so small as to be hardly worth consideration, and herein lies one great advantage of artificial culture; the Oneida hatchery averages about 90 per cent. of fry from the eggs taken, and the fry are planted in smaller lots where the enemies are less abundant.

On May 12, 1911, the pikeperch at the Oneida station were practically all hatched, and the planting of the fry was well advanced.

On April 20, 1911, Mr. Chester K. Green, of Cape Vincent, N. Y., had only a few pikeperch in the pens at his station, and some of them were nearly ready to spawn. The ice up to that date had been very heavy in Lake Ontario, the water very cold and as a consequence fishermen had taken only a few fish.

The work was conducted at Mud creek. The first take of eggs was on April 21st, about three weeks later than the normal spawning season. During the first week of the spawning season 16,000,000 eggs were secured.

## YELLOW PERCH.

At Constantia, N. Y., yellow perch began to spawn April 25, 1911. Foreman Scriba collected a large number of gravid fish, and placed them in a large tank near the stripping-house. The eggs hatched duly and resulted in planting 95,000,000 of fry in Oneida lake. In addition, 300,000 fingerling yellow perch were sent from the station to fill applications from many parts of the State.

The *Syracuse Herald,* of December 29, 1910, had the following notes on the capture of yellow perch in Onondaga lake:

"Catches of perch that delight the fishermen have been made on Onondaga lake, at Liverpool, during the past few days, and the ice has been dotted with hundreds of people either fishing or watching those engaged. The perch were in big schools and took the baits offered them freely. Baskets heavily laden with the fish have been coming into the city, to be sold to markets or distributed among the fortunate friends of the fishermen.

" The fishing has all been done through the ice, and yesterday there was a crowd that it was estimated numbered 500 on the ice. Most of these were busy with their lines and hooks, but there were many who went on the ice to see the sport. Others who went first as spectators became deeply interested and then paid good prices for the use of tackle with which to get their share of the fishing. The fishing for several days last week was good. Then came several poor days, but yesterday the fish were again taking hold and the catches were very large."

The above is quoted to show how abundant the yellow perch have become in Onondaga lake, and to account, perhaps, for the disappearance of the tullibee from that lake. Years ago the tullibee was abundant there, but now it is seldom or never seen. The well-known egg-eating habit of the yellow perch may help to explain this disappearance.

## FROGS.

The main thing to attend to in shipping live frogs is to give them all the air possible by having wire screens in the top and ends of the shipping box. They should have plenty of water plants which should be wet at the start and have the water renewed by the express messenger, if the journey be a long one, several times on the way. No food is necessary, but water is absolutely needed.

The frog and the toad are not useful additions to the fauna of trout lakes, and the newt, or so-called lizard, has very doubtful value; but it may not do any injury.

## FISH FOOD.

In restricted ponds we give our fish beef liver ground to the proper consistency, that is, very fine for the young fish and coarser for the large ones. The hearts of domestic animals are also used for food in the same way. Minnows and suckers ground up fine are extensively employed for trout food. The best of all the foods for trout are insects, their larvæ, small shells, crawfish, etc., which are found in good trout streams. Certain waters contain small crustaceans, including the so-called freshwater shrimp, and many smaller forms which are excellent for trout.

Preference is given in the State hatcheries to sheep's plucks for feeding fish, but hog plucks have been used successfully by noted breeders.

Important trout foods are snails, dragon flies, May flies and caddice flies. Caddice cases and larvæ are found very generally around the shores of some lakes and their small tributaries. They stand high in importance as trout food. The cases are readily regurgitated after their contents have been absorbed by the fish. The larvæ and the older stages up to the perfect form of the fly are easily taken during their season.

The snails, of which the *Planorbis* is now most abundant in some lakes, are excellent food for trout.

Mr. L. M. Deming, of Edmeston, N. Y., sent to the Commission, on May 25, 1911, a snail which forms an important part of the food of brook trout in a pond belonging to him. He writes that he caught four trout from 9½ to 11 inches long on May 25th. Their stomachs all contained bugs, insect larvæ and from 5 to 16 snails. A specimen of the shell referred to was identified at the State Museum as a common species of *Planorbis*. Mr. Deming has found a great many large and small shells in the stomachs of his trout, and he writes that the trout feed extensively on snails and grow very fast. One of the trout examined by him on May 25th had eaten 16 snails, 1 June bug, 2 insect larvæ — each about 1 inch long with a hard shell (probably a caddice fly larva), 1 hard shell and a lot of small flies and bugs.

## TROUT FOOD.

Lane's Food for trout consists of the following ingredients:

2 quarts animal meal.
1½ pounds of salt.
8 quarts corn meal.
16 quarts mill middlings.
24 quarts of water brought to a boil.

These articles are thoroughly cooked, and when properly cooled are pressed through a colander-like receptacle into worm like strings of about a finger length. These " worms " are allowed to dry, and are afterward fed to the trout. They do not disintegrate rapidly in the water, and seldom fall to the bottom before the fish get them.

## TROUT DISEASES.

There was considerable loss of brook trout fry at the Adirondack hatchery in the spring of 1911. When the eggs from which these fry were hatched were received, they appeared to be in very good condition; but when the fish hatched they lacked vitality, and there was notable loss. The tail of the fish turned white, the fry lived only a day or two and then died.

## FISH ENEMIES.

The fish hawk is a very destructive bird at the Oneida station. It attacks the adult bass in the ponds. It does not eat the entire fish, but simply eviscerates its victim and leaves the remainder.

## FISH PARASITES.

Many of the minnows which are caught in large numbers for the food of black bass and calico bass at the Linlithgo station have been found suffering from the attacks of larval worms which enter the crystalline lens and destroy the sight. It is common to find fish with one eye absent and some are totally blind. The fish is only a temporary host of the larval worm whose final development takes place in certain water birds which eat the fish. Unfortunately we have no effective means of checking this parasite except to keep water birds off the premises. An account of this cataract caused by worm larvæ is given by Dr. Hofer in his Handbuch der Fischkrankheiten, 1904, pp. 293-295.

On April 15, 1911, many of the breeding black bass in Pond No. 3, the oldest bass pond at the Oneida station, were dead or dying. Bass had been kept in that pond during three winters preceding the last winter without serious loss. The pond was one of the tannery vat locations, and it was suspected that the hemlock bark liquor had something to do with the loss of the fish, but this has not affected the bass heretofore and probably has nothing to do with the losses referred to.

An examination of some of the recently dead fish showed parasitism of several forms. A larval worm encysted under the epidermis causing black specks resembling fly specks, immature jointed worms, perhaps related to tapeworms, in the mouth and gills, and fish lice (copepods) in the roof of the mouth and other parts of the head were all observed simultaneously. This unfortunate combination of parasites no doubt reduced the vitality of the bass to such an extent that they could not take the live minnows provided for their use in winter quarters, and they starved to death. There is no other way of accounting for the large mortality among the fish. This is the first time in the history of the ponds that such winter losses have occurred, and this condition demonstrates the necessity of liberating the bass at Oneida station after they have protected their young up to the time of "breaking the swarm." Thus far, it has been easy to net in Oneida lake all the gravid bass needed for the season's work, and the transfer of the fish to breeding ponds almost immediately before spawning begins has involved no interruption of the nest building.

A specimen of the parasitized bass was forwarded to Prof. Edwin Linton, Washington and Jefferson College, Washington, Pa., and from him was received the following report:

"Length of the fish, 12 inches.

"The following parasites were found:

"1. *Copepod parasites* belonging to the genus *Trachiastes,* or near it: 23 taken from mouth and gills, distributed as follows: 2 on upper lip, 3 just back of vomer, 5 on palate just in front of gill arches, 2 on dorsal gill arch, 1 on ventral gill arch, 8 on gills (2 of these on gill rakers).

"2. *Taenia sp.* about 35, taken from serous coat of intestine and pyloric coeca; all small maximum about 25 mm, in alcohol, white, still active when placed in salt solution.

"3. *Echinorhynchus sp.* 36 mostly from pyloric coeca, a few from intestine."

"The fish louse specimens were forwarded to Prof. Charles B. Wilson, State Normal School, Westfield, Mass., who wrote concerning them on May 26, 1911, as follows:

"I find on examining the parasitic copepods from the small mouthed black bass which you sent me that they are *Achtheres micropteri,* Wright. Another species of the same genus, *A. ambloplites,* infests the red-eye, although I have never found them at all numerous, not more than 3 or 4 upon a single fish.

"I published the complete life history of this last species from studies conducted at Lake Maxinkuckee, Indiana, only a few months ago. I found the free-swimming period of the larva is of remarkably short duration; under ordinary conditions not many of the larvæ can find a host within this period and so perish. But within the confined area of breeding ponds the conditions would be more favorable and nearly all of the larvæ would make a 'find.' I know of no way by which to guard against their attacks in such places.

Very truly yours,
CHARLES B. WILSON."

Constantia is one of the best locations for the study of larval worms and copepods which are parasitic on fishes.

On September 18th a lot of common sunfish were sent by A. J. Conkling, of Matteawan, to the office for examination. The eyes of many of these fish were destroyed by parasitic worms, a condition similar to what has been observed at Constantia in the troutperch, yellow perch, pikeperch, black bass, and other species. Mr. Conkling wrote that the fish were taken from the shore of Beacon reservoir. The caretaker said he had picked up about 3,000 in three weeks. Mr. Conkling further states that the reservoir was full of small catfish. In walking across the dam he saw as many as 100 of them, about 5 inches long, swimming on top and all apparently after the sunfish.

## FISH PRESERVATIVES.

Numerous inquiries concerning fish preservatives have been received by this Commission. Anglers and other fishermen who capture curious or unidentified specimens wish to know how to ship them safely to some museum or to the office of the Commission for examination. We have found that common salt will answer this purpose in almost every case, although it is not well to leave the fish in salt very long, as it makes the fibres too brittle for permanent preservation in alcohol or some other medium. After a short period in salt, not extending over a few days, it is practicable to freshen the fish over night in water and then put it into alcohol or formalin. Many students of fish prefer alcohol to formalin because the latter injures the hands and alcohol does not. The usual proportions for a preserving fluid are three parts of alcohol to one part of water. A less percentage of alcohol requires such frequent renewals as to make it unsafe as a preservative. Another very useful fish preservative is commercial acetate of soda, an inexpensive material which can be used in the same way as salt; but salt has the advantage of being harmless. For large specimens of fish it is necessary to make an opening in the belly and fill the cavity with salt or other preservative.

## EXAMINATION OF WATERS.

In accordance with a request of Commissioner Austin I went to Twitchell lake, three miles from Big Moose, in Herkimer county, on October 21, 1910, and remained until the night of October 23d for the purpose of reporting on the character of the lake and the question of screening its outlet.

A number of property owners around Twitchell lake, resident and nonresident, wished to place a screen at the outlet, to prevent the rainbow trout from escaping into Twitchell creek. A thorough examination of the lake, its small tributaries and the outlet led to the opinion that no screen should be introduced. It would be against the general policy of the Commission to permit such obstruction in the stream; and it would not accomplish the object desired by the petitioners as well as the better policy of stocking the streams and lakes tributary to Twitchell lake, and the reduction of the few rock obstructions which now interfere with the free ascent of trout through the upper waters of Twitchell creek into the lake. The rapids in the first one-eighth mile of the course of Twitchell creek could easily be overcome by means of an inexpensive fishway to supplement the natural fish ladder which now appears almost complete in the creek. A few sticks of dynamite, properly used, in the rock bed would remove the obstructions to such degree as to make it possible for trout to go up into the lake.

From personal observation and from information obtained from residents, Twitchell lake, at present, contains nothing but brook trout, lake trout and chubs. The chub is the common horned dace, or fallfish, *Semotilus atromaculatus*. This fish appears to be starved, probably because it has increased in numbers too rapidly for the natural food supply. The trout feed upon this fish. The black nosed dace is said to live in this lake also; but we were unable to find it.

Twitchell creek is about twelve miles long, and it flows into Beaver river. Twitchell lake is of glacial origin, and lies at the elevation of 2,050 feet. It contains a few species of water plants, relatives of the water lilies, also a plant resembling eel grass and a bushy species which is well adapted for the shelter of young trout and the natural food of trout. The water is clear and cold and is well stocked with insects and crayfish. The comparatively shallow depth of the water, about forty feet at the maximum, is unfavorable to the prosperity of the lake trout, although there are some fish of that species in the lake. There is no reason why the lake should not support a larger number of brook trout and rainbow trout.

The shores of the lake include few beaches, and the bottom is hard and covered with pebbles and boulders of various sizes. There are a few large glacial boulders in the lake and the headwaters of Twitchell creek exhibit a great jumble of immense boulders and rock ledges.

In order to improve the fishing it would be best to increase the stock in the lake itself and to plant rainbow trout in Oswego ponds, Lilypad pond, Little Birch pond, all of which empty into Twitchell lake, and in several small streams flowing into the head of the lake. This restocking with brook trout and rainbow trout will no doubt accomplish the object of the petitioners better than the introduction of a screen.

From July 29 to 31, 1911, Star lake in St. Lawrence county was investigated under instructions from Commissioner Fleming.

A tour of the lake was made July 30th in company with Messrs. Sayles, York, Tears and other anglers. On the morning of July 31st, I went fishing with Mr. Zimmerman, an expert angler, and a cottage owner on Star lake. We took a lake trout and a brook trout. The brook trout is said to be uncommon in Star lake at present while the lake trout, called salmon trout in that region, is moderately abundant.

Arrangements were made with some of the cottage owners to set minnow traps in various places. From these were obtained the large scaled sucker, corporal chub and black nosed dace. The sucker is particularly abundant in Star lake; the minnows are less common. These fish furnish excellent trout food and they make it difficult to catch the trout by angling.

Bullheads and crawfish are present in the water ; the latter are especially abundant and furnish excellent food for the brown trout, lake trout, and rainbow trout, all of which have been introduced either by the State or by private enterprise.

It is stated that the lake was originally without fish. Brook trout are said to have been introduced from Little river about sixty years ago by Mr. Youngs and again still later by Mr. Backus and others. According to the testimony of Mr. Nill, suckers were not found in the lake until a few years ago. Now they are so abundant as to have become a nuisance. Suckers, chubs and other minnows were brought in by anglers for bait. The chubs were carried from Twin lake. Crawfish were planted by some angler who brought them from a distance and they are now very abundant.

Star lake derives its name from its numerous bays arranged in something resembling a star. It covers about 640 acres and has a maximum depth of over 100 feet. For the most part the bottom drops off suddenly from the shores; but there are a number of sand beaches on which the trout find spawning grounds. There are a number of sandbars and some rock ledges; but these are not sufficiently extensive to furnish good spawning places for all the fish.

The lake has no inlets of any importance, and this makes it a body of water difficult to stock. The only feasible course to be followed by the Commission is to continue stocking the lake with brown trout and rainbow trout, and to allow some of the landowners who are interested in the improvement of the fishing to screen off certain small private bays as places of shelter for the young trout, and to permit them to hold the fish in such bays until they are large enough to take care of themselves.

The lake trout is well enough established to maintain itself without further stocking at present.

Star lake is remarkably destitute of native water plants. It contains a few white water lilies (introduced) and rather more yellow lilies, little patches of horse tail and a plant resembling eel grass but more robust. It would be a good plan to introduce eel grass (*Valisneria*), and perhaps some other aquatic plants, to provide additional shelter for young fish.

The lake has no overflow except in freshet times, and then, I am informed, only about four inches of water flows over a small dam which has been placed at the outlet. I am told that this overflow cannot go into Little river as we supposed, but is received into a series of small ponds which have no outlet, and which diminish greatly in volume in dry weather.

There is no pollution by sewage, as the property-owners have introduced cesspools and open tiles for conveying the liquid part of the waste from closets. In no case did I see a particle of evidence of pollution of the lake.

The rainbow trout planted by the Commission have become well established, and they may frequently be seen rising to the surface in various bays. A number of them have been caught by still fishing, and I am satisfied that an expert fly caster would take that species without difficulty.

## FISHING IN OWASCO LAKE.

The following letter, on account of its interest to the people of the locality, is made part of the report:

" THREE-MILE BAY, N. Y., July 7, 1911.

"DR. T. H. BEAN, Albany, N. Y.:

" DEAR SIR.—Last winter I wrote you in regard to some fishing in Owasco lake which I was at that time trying to get, as the Owasco Lake Anglers' Association at Auburn were intending to have the carp taken out. I have been there with ten trap nets for three weeks, and found I was just three weeks late to get carp as they had left the shallows for deep water. But on the whole the anglers were satisfied with my work as I showed to them many more fish than they supposed the lake contained. Thinking you might be interested, I told Mr. B. A. Skeel, Secretary of the Association, I would write you about it. I used ten trap nets of 4 and 6 feet for 23 days.

" I took 2,967 suckers, 725 carp, 24 eels.

" The estimate of other fish which we had in nets and at once set free: Large yellow perch, 10,000; large yellow pike, 1,200; blue pike, 40; black bass, 75; trout, 6; rock bass, 10 pounds; bullheads, 150 pounds.

The yellow perch are much larger than any ever seen by me in any waters at Lake Ontario or the St. Lawrence river; as some of them would weigh over two pounds and as a whole, some days, would average one pound each for a day's catch. These perch at this time are not taking any kind of bait and on inspecting the fish we found in every case they were feeding on sucker spawn, and we also found the suckers in the cold water were still spawning and would be spawning all summer quite likely. We find this lake contains yellow pike and in large number we should judge, as we took about 1,200 pounds with three small nets not suitable for pike fishing. Owing to my getting any pike at this time with such nets I judge there is a large quantity of pike there. These pike never taking the hook in this lake raises the question as to whether they should be left in the lake where the chief hook fishing is for these lake trout, and I have myself advanced the argument that sooner or later it will be either *all trout or all pike*. It now appears these pike were put in about 17 years ago. No doubt your advice will be asked in this matter, and if I can be of any service to you I will be glad to assist. We estimated one of these pike to weigh 15 pounds and a number to go about 10 pounds, from that down to one about 6 inches, showing they are still thriving, and with the many thousands who fish in every way and not one pike being caught, it looks as if they were overfed.

"Yours truly,

W. M. DICK."

## POLLUTION.

It is not quite true that the shad and other choice fish have too much sense to poke their noses into the Hudson, as expressed by Dr. Wiley; but there is no doubt that the natural spawning of the shad, striped bass, white perch and other valuable food fishes is greatly curtailed by pollution of one kind or another, and many spawning beds have been destroyed by cinders and other waste from river steamers. Notwithstanding the deplorable condition of the river, shad have furnished us with 8,600,000 eggs this season. This reminds us of the old days of thirty odd years ago when the Commission was able to collect 10,000,000 shad eggs in a season at Castleton and Catskill. The shad have dropped a little farther down the river in that length of time; but if the Commission continues to plant millions of fry and a certain proportion of fingerlings annually, and the proper measures are taken to diminish the pollution of the stream, we may expect to see the Hudson restored to its former glory as a shad stream.

## COURTESIES.

The United States Bureau of Fisheries, at the request of the Commission, shipped to the Adirondack Station, during the summer 40,000 black spotted trout eggs. These eggs produced 22,738 fingerlings. Of this number 2,000 were planted in Meadow pond, Franklin county, and the remainder in Little Green pond in the same county.

At the request of Chester K. Green, Superintendent of the United States Fisheries Station, Cape Vincent, N. Y., permits were issued to Henry W. Marks and George E. Humphrey, both of Cape Vincent, to fish for lake trout in the vicinity of Cape Vincent from November 1 to November 20, 1911, both inclusive. The object of this fishing is to take eggs of lake trout for development at Cape Vincent, the fry to be distributed in New York waters.

On September 25th the foreman of the Cold Spring Harbor station, by direction of the Commission, delivered eight large male rainbow trout and twenty-five smaller males to the New York Aquarium for exhibition purposes, and on October 26th the foreman of the Linlithgo station delivered thirty short nosed sturgeon to the Aquarium for the same purpose.

Through the kindness of the Southside Sportsmens' Club of Long Island, of which Mr. George P. Slade, of New York, is president, our Long Island station was furnished with nearly 3,000,000 brook trout eggs of fine quality from the preserve of the club. These eggs were developed to the eyed stage at Cold Spring Harbor for further development and distribution from the Caledonia and Adirondack hatcheries.

On March 31st the foreman of the Cold Spring Harbor hatchery planted 1,000,000 whitefish fry in Lake Hammersley, Dutchess county, and on May 31st he planted 750,000 pikeperch fry in Ronkonkoma lake, Suffolk county. These fish were given to the Commission by the New York Aquarium.

At the request of Barton A. Bean of the United States National Museum two maskalonge each one foot in length, three ranging from 18 inches to 36 inches, and one large specimen were shipped from the Chautauqua station to the museum, the museum furnishing the necessary tanks and preservatives.

Prof. W. M. Smallwood, of Syracuse University, sent some tanks to the Chautauqua hatchery to accommodate a collection of fish which was to be made in Chautauqua lake by our foreman. Such species as were found in the maskalonge nets and other apparatus used in our work were placed in the tanks for the use of the university.

## STATE FAIR.

On September 15th the Commission's representative, who had charge of the fish exhibit at the State Fair, reported the loss of some Albino trout. This was due chiefly to insufficient water supply, and the nervousness of the fish which were unaccustomed to the strong light.

Mr. Arthur L. Bishop, chairman of the Fish Propagating Committee of the Anglers' Association of Onondaga, reported that of the fish delivered by the Conservation Commission from the State Fair but three rainbow trout were lost. The fish which had been on exhibition were placed in the waters of Onondaga county. The association expressed appreciation of the work of the Commission.

The Conservation Commission should have a separate building for its display because of the very great public interest in exhibits such as this Commission can provide, and for the reason that no live fish and other water animals can be shown satisfactorily in connection with general exhibits. The water supply for live fish should be controlled absolutely by those in charge of the aquarium. It should be ample for the purposes for which it is intended and it must be continuous during the entire period of the exhibition. It has been proven by experience that nothing else in the line of exhibits will attract so much favorable attention as live fish properly shown in good condition. If the Conservation Commission were permitted to furnish plans for an aquarium and for its other exhibits in a building under its own control the people would be delighted with the results. It has been demonstrated that a public aquarium is the most popular and most economical of all forms of public museums. The Aquarium in New York city has a larger attendance than all the other museums combined, and it costs less for maintenance than any of the rest.

Respectfully submitted,
TARLETON H. BEAN,
*Fish Culturist.*

ALBANY, N. Y., *December* 20, 1911.

# ANNUAL REPORT

OF THE

# CONSERVATION BUREAU, ATTORNEY-GENERAL'S OFFICE.

# ANNUAL REPORT CONSERVATION BUREAU, ATTORNEY-GENERAL'S OFFICE.

*December* 31, 1911.

*Conservation Commission, Albany, N. Y.*

SIRS.— I respectfully submit the following report of the Conservation Bureau of the Attorney-General's office from December 31, 1910, to December 31, 1911, inclusive.

Prior to the 1st of October, 1911, the duties of this department were vested in the legal department of the Forest, Fish and Game Commission and the same conducted by counsel appointed by that Commission. The records of the department are at the disposal of the Attorney-General's office and actions pending at that time and brought subsequent thereto are the subject of this report.

A brief summary of the actions commenced prior to December 31, 1910, and which were still pending on that date is as follows:

| | |
|---|---|
| Total number of actions | 186 |

On January 1, 1911, the following violations had been reported to this bureau and were then pending:

| | |
|---|---|
| For fire violations | 37 |
| For top-lopping violations | 61 |
| For fish and game violations | 90 |
| For trespass | 148 |
| For ejectment | 75 |
| Total | 411 |

There were reported during the year 1911 the following violations:

| | |
|---|---|
| For fire violations | 37 |
| For top-lopping violations | 61 |

| | |
|---|---|
| For fish and game violations | 130 |
| For trespass | 61 |
| Total | 231 |

Of the violations pending and reported, there were settled without action the following:

| | |
|---|---|
| For fire violations | 24 |
| For top-lopping violations | 78 |
| For fish and game violations | 96 |
| For trespass | 49 |
| Total | 247 |

During the year 1911 there were commenced and pending the following actions:

| | |
|---|---|
| For fire violations | 17 |
| For top-lopping violations | 18 |
| For fish and game violations | 98 |
| For trespass | 57 |
| For ejectment | 75 |
| Total | 265 |

The following actions were disposed of during the year 1911:

| | |
|---|---|
| For fire violations | 12 |
| For top-lopping violations | 13 |
| For fish and game violations | 53 |
| For trespass | 27 |
| For ejectment | 5 |
| Total | 110 |

There are still pending of the actions which had been commenced prior to December 31, 1910, and were commenced during the year 1911, the following:

| | |
|---|---|
| For fire violations | 5 |
| For top-lopping violations | 5 |
| For fish and game violations | 45 |
| For trespass | 30 |
| For ejectment | 70 |
| Total | 155 |

| | | |
|---|---|---|
| Actions pending January 1, 1911 | 186 | |
| Actions settled during year 1911 | 57 | |
| Actions still pending | | 129 |
| Actions commenced during year ending December 31, 1911 | 79 | |
| Actions settled during year 1911 | 53 | |
| Actions still pending | | 26 |
| Total number of actions pending | | 155 |

During the year 1911 this bureau has collected and accounted for the following sums:

| | |
|---|---|
| For fire violations | $1,465 45 |
| For top-lopping violations | 3,123 80 |
| For fish and game violations | 6,412 59 |
| For trespass | 14,891 25 |
| Total | $25,893 09 |

There remains due and uncollected on judgments recovered the following:

| | |
|---|---|
| For fire violations | $410 50 |
| For top-lopping violations | 167 00 |

| | |
|---|---|
| For fish and game violations | $101 00 |
| For trespass | 9,916 20 |
| Total | $10,494 70 |

It might be well to refer to the fact that of the number of cases which are reported as pending, 63 of the same are actions in ejectment involving land in two adjacent townships, namely: Townships 15 and 32 of Totten and Crossfield's Purchase and growing out of one transaction or purchase by the State from the Indian River Company, and have been pending for several years, and it is anticipated that an early disposition will be made of all these cases.

The most important among the actions litigated during the year are those involving the title to lands in the forest preserve; actions for trespass upon the State's land; actions to recover penalties caused by setting fires to timber upon the State's land, and prosecutions for violating the fish and game provisions of the statute. Notable among the cases tried during the year are three actions against the Santa Clara Lumber Company, involving the title to approximately four thousand acres of valuable timber land in Hamilton and Essex counties and for which penalties were sought to be recovered, amounting to nearly a quarter of a million dollars; actions against the New York Central and Hudson River Railroad Company and the Delaware and Hudson Company, growing out of the forest fires of 1908; the final disposition of the action brought by the People against the Brooklyn Cooperage Company, which involved the State's interest in large timber rights in the forest preserve. In an action brought against the Long Island Railroad Company to recover penalties for a violation of the provisions of section 228 of the Laws of 1900, judgment was rendered in favor of the State for $32,789.50, which judgment was sustained by the Appellate Division. Notable among the recoveries for penalties for trespass is that of the payment of $10,000 by the Union Bag and Paper Company.

It is my desire to make acknowledgment of the valuable assistance rendered by your Commission and the various heads of departments with whom I have been obliged to consult and also for information and courtesy which have at all times been extended to this bureau.

Yours very respectfully,
JOHN T. NORTON,
*Deputy Attorney-General.*

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# INDEX TO VOLUME I.

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